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Part 1

Comments of

Grassland Water District
Grassland Resource Conservation District
and
The Grassland Conservation, Education and Legal Defense Fund

on the

Draft Bay Area to Central Valley
High-Speed Train
Program Environmental Impact Report/
Environmental Impact Statement

SCH Number: 2005112051

VOLUME 1

October 26, 2007

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October 25, 2007

Dan Leavitt
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California High-Speed Rail Authority
925 L Street, Suite 1425
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Re: Comments of Grassland Water District, Grassland Resource Conservation District, and The Grassland Conservation, Education and Legal Defense Fund on the Draft Bay Area to Central Valley High-Speed Train Program EIR/ EIS, SCH # 2005112051

Dear Mr. Leavitt:

On behalf of the Grassland Water District ("GWD"), the Grassland Resource Conservation District ("GRCD") and the Grassland Conservation, Education and Legal Defense Fund ("GCELDF")[1], this letter provides comments on the Draft Bay Area to Central Valley High-Speed Train Program Environmental Impact Report/ Environmental Impact Statement ("DEIR/S"), State Clearinghouse number 2005112051. L029-1

The EIR/S is a second-phase Program EIR/S being prepared for the California High Speed Train System ("HST") pursuant to the California Environmental Quality Act[2] ("CEQA") and the National Environmental Policy Act[3] ("NEPA). A first-phase Program EIR/S on the statewide HST has already been completed ("Statewide HST Program EIR/S"). The purpose of the DEIR/S is to select the HST

[1] The GCELDF is also known as the Grassland Conservation and Education Fund ("GCEF"). The GCEF is currently in the process of formalizing the change of its name to the GCELDF.
[2] Pub. Resources Code §§ 21000 *et seq.*
[3] 42 U.S.C. § 4321 *et seq.*

alignment from the Central Valley to the Bay Area ("the Project" or "the Northern Crossing alignment"). L029-1 cont'd

The High Speed Rail Authority ("Authority") is the lead agency for this Project for purposes of CEQA, while the Federal Railroad Administration ("FRA") will serve as the federal lead agency for environmental review under NEPA.

The primary controversy regarding the Northern Crossing alignment is the dispute over whether the HST should cross from the Central Valley to the Bay Area over the Altamont Pass corridor or over the Pacheco Pass corridor. The DEIR/S evaluates several alignment options within each corridor. The Altamont Pass alignment options run generally along Interstate 580. The Pacheco Pass alignment options run generally along State Routes 140 and 152 ("Highway 140 alignment" or "GEA North Alignment") or Henry Miller Road and 152 ("Henry Miller Road alignment"). L029-2

The GWD and GRCD (collectively, "the Districts") are concerned about the Project because the proposed Pacheco Pass alignments would pass through or otherwise impact the Districts' jurisdictional boundaries. The combined area of the GWD and GRCD contains approximately 60,000 acres of privately owned wetlands located north, east and south of the City of Los Banos in Merced County. The Districts are charged under state law and federal contract with the responsibility to manage water resources and carry out conservation programs in order to preserve and protect this resource, primarily as habitat for waterfowl and other wildlife species. Land stewardship in the Districts mostly comprises privately owned and managed waterfowl hunting clubs that receive their water supply from GWD. L029-3

The Districts together with the adjacent federal wildlife refuges, state wildlife areas and state park lands make up the Grasslands Ecological Area ("Grasslands" or "GEA"). Attached as Appendices 1 through 3 to volume 2 of this Comment are three maps that show the boundary of the GEA and the federal and state lands and easements within the GEA. Encompassing approximately 180,000 acres, the GEA is the largest wetland complex in California and contains the largest block of contiguous wetlands remaining in the Central Valley.[4] This region is

[4] Appendix 8, Grassland Water District, Land Use and Economics Study: Grasslands Ecological Area (July 2001), p. 2 (hereafter "*Grassland Land Use and Economics Study*").

considered a critical component of the Central Valley wintering habitat for waterfowl and has been recognized as a resource of international significance. L029-3 cont'd

The GCELDF is concerned about the Project because of its potential impacts on the GEA. The GCELDF is a non-profit organization dedicated to the protection of the GEA through education, conservation and advocacy efforts. The GCELDF runs the Grassland Environmental Education Center and is a member of the Grasslands Stewardship Plan project team. The GCELDF is a past recipient of the PG&E Community Service Award and the Association of California Water Agencies Theodore Roosevelt Environmental Award. The GCELDF's Grassland Environmental Education Center is located at the Los Banos Wildlife Area's Interpretative Marsh at 18110 W. Henry Miller Road, Los Banos, California. The proposed Henry Miller Road alignment would run directly through this location. L029-4

The GWD, GRCD and GCELDF strongly oppose the proposed Pacheco Pass alignment options over Henry Miller Road and Highway 140 due to their potential to result in devastating impacts on the GEA. The Highway 140 alignment is referred to in the DEIR/S as the GEA north alignment because it bisects the northern corner of the GEA. The Henry Miller Road alignment bisects a critical and endangered corridor separating the north GEA from the south GEA. Both of these alignments pose a serious threat to the GEA and could result in substantial injury to this internationally important resource.

Bisection of the GEA by a high speed rail may interfere with critical wildlife corridors, disrupt canals and waterways, degrade water quality, interfere with waterfowl nesting and breeding, induce inconsistent growth in and adjacent to the GEA, and increase wildlife mortality rates due to noise, shock and collision impacts. Contrary to the assumptions made in the DEIR/S, construction of a few wildlife underpasses alone would be insufficient to address this impact. L029-5

The Henry Miller Road alignment is particularly troublesome because the area along Henry Miller Road is already dangerously fragmented. According to experts, this proposed alignment could provide the "final blow" in fragmenting the vulnerable linkage between the north and south units of the Grassland Management Area.[5] This would "have a profound effect on the movement of waterfowl between different parts of the refuges they now utilize on a daily basis."[6]

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[5] Appendix 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study*

We urge the Authority to reject any HST alignment that would cross or otherwise fragment the GEA. At a minimum, the Authority must ensure that no decision on the alignment shall be made until the potential impacts on the GEA are fully and thoroughly examined. L029-5 cont'd

As these comments will demonstrate, the DEIR/S is a fatally flawed document. It fails in almost all aspects to perform its function as an informational document that is meant "to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project."[7] The DEIR/S must be revised and re-circulated before it can be relied upon to support agency decisions such as selection of a Pacheco Pass alignment. L029-6

We have prepared these comments with the assistance of GWD staff biologist Rich Wright (biological resources, land use and other impacts). In addition, we have attached reports by planning expert Terry Watt and biologist Dr. Karen Weissman which also evaluate the potential impacts associated with locating a HST system through or adjacent to the GEA. The comments of these experts are attached hereto as Exhibit A (*Wright Comments*), Appendix 17 (*Watt Comments*) and Appendix 4 (*Dr. Weissman Comments*). Please note that these experts' comments supplement the issues addressed below and should be addressed and responded to separately. L029-7

I. IMPORTANCE OF GRASSLAND ECOLOGICAL AREA

The GEA is an irreplaceable, internationally significant ecological resource. The GEA is located west of the City of Merced and surrounds the City of Los Banos to the north, east and south. Originally, this area was part of a four million acre wetland system in the Central Valley of California. Of the 300,000 acres that remain, the GEA is the largest contiguous block of wetlands in the Central Valley. The protection of this area has been the result of private and public investments and partnerships. L029-8

(1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)), p. 47; see also Exhibit A, Rich Wright Comments.

[6] Appendix 8, *Grassland Land Use and Economics Study.*

[7] *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391.

The GEA boundary is a non-jurisdictional boundary designated by the U.S. Fish and Wildlife Service in order to identify an area for priority purchase of public easements for wetland preservation and enhancement.[8] The GEA includes federal wildlife refuges, a state park, state wildlife management areas and the largest block of privately managed wetlands in the state. The GEA also includes a large and growing portfolio of federal and state conservation easements. Through 1998, conservation easements had been acquired on over 64,000 acres at a total cost of over $28 million.[9] Acquisitions since 1998 have increased the number of acres protected by conservation easements to over 70,000 acres. Significant areas of the GEA, however, remain unprotected from future development.

L029-8 cont'd

The U.S. Fish and Wildlife Service recently proposed significantly expanding the GEA boundary to the east by an additional 45,000 acres. The area of the proposed expansion is indicated on the brochure attached as Appendix 16.

The GEA is of considerable importance because it preserves a variety of habitats important to the maintenance of biodiversity on a local, regional, national and international scale. It has been estimated that thirty percent (30%) of the Central Valley migratory population of waterfowl use this area for winter foraging.[10] The GEA is a major wintering ground for migratory waterfowl and shorebirds of the Pacific Flyway. Over a million waterfowl are regularly found in the GEA during the winter months.[11] The GEA also provides habitat for more than 550 species of plants and animals, including 47 plant and animal species that are endangered, threatened or candidate species under state or federal law, including San Joaquin kit fox, Aleutian Canada [cackling] geese, sandhill cranes, California tiger salamander, vernal pool fairy shrimp, tadpole shrimp, California red-legged frog, the giant garter snake, Swainson's hawks and tri-colored blackbirds.[12]

The Western Hemisphere Shorebird Reserve Network has designated the GEA as one of only 15 international shorebird reserves in the world.[13] The GEA

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[8] *Grassland Land Use and Economics Study* at p. 2.
[9] *Id.* at pp. 11-12.
[10] U.S. Bureau of Reclamation, *Final NEPA EA, Refuge Water Supply Long-Term Water Supply Agreements* (January 2002).
[11] Appendix 8, *Grassland Land Use and Economics Study* at p. 2.
[12] *Id.*
[13] Appendix 11, Fredrickson, Leigh H. and Laubhan, Murray K, *Land Use Impacts and Habitat*

was also recently recognized in February 2005 as a Wetland of Worldwide Importance by the Ramsar Convention.[14] The Ramsar Convention is an international agreement dedicated to the worldwide protection of particular ecosystems. Ramsar member nations work to coordinate wetland conservation efforts, particularly for species that rely on ecosystems that span member nation's borders. The designation of the GEA as a Wetland of Worldwide Importance illustrates the tremendous worldwide ecological value of the GEA ecosystem. The GEA is one of only four such wetland sites in California, and one of twenty-two sites in the country. The GEA has also been recognized by the American Bird Conservancy as a Globally Important Bird Area.[15]

L029-8 cont'd

In addition to providing critical biological habitat, the Grasslands' wetlands also provide a wide range of other benefits to the area, including flood control and educational and recreational opportunities. This concentration of wetlands and wildlife is a unique feature of the area, attracting hunters and other recreational visitors who make significant contributions to the economy of the area. The GEA receives over 300,000 user visits per year for hunting, fishing and non-consumptive wildlife recreation.[16] Recreational and other activities related to habitat values within the GEA contribute $41 million per year to the Merced County economy, and account for approximately 800 jobs.[17]

A thorough study of the potential impacts that the Project may have on the GEA is vital to ensure it does not damage this irreplaceable ecological resource of international importance.

L029-9

II. CEQA REQUIRES AGENCIES AND THE GENERAL PUBLIC TO BE INFORMED ABOUT THE ENVIRONMENTAL CONSEQUENCES OF AGENCY DECISIONS *BEFORE* THEY ARE MADE

L029-10

CEQA has two basic purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a

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Preservation in the Grasslands of Western Merced County, CA (February 1995), p. 3.
[14] *See* http://international.fws.gov/ramsar/ramsar.htm.
[15] See http://www.abcbirds.org/iba/california.htm.
[16] Appendix 8, *Grassland Land Use and Economics Study* at p. 14
[17] *Id.* at p. 21.
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project.[18] "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'"[19] L029-10 cont'd

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.[20] If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in CEQA section 21081.[21]

In the case at hand, the DEIR/S fails to satisfy either of these basic purposes. The DEIR/S, as presently constituted, is legally deficient because: (1) it employs an inaccurate and incomplete description of the project setting which, among other defects, fails to disclose that the Henry Miller Road alignment would bisect a critical corridor of the GEA; (2) it contains an incomplete project description that omits critical details of the project, including, but not limited to, significant construction, engineering and operational aspects of the project, frequency of train pass-bys, location and size of appurtenant operational and maintenance facilities, and the location of a Merced County station if the Henry Miller Road alignment is chosen; (3) it fails to disclose the crossing of the GEA as an area of controversy; (4) it fails to support its findings regarding significance of environmental impacts, feasibility of mitigation and feasibility of alternatives with substantial evidence; (5) it fails to adequately consider and/or identify numerous potential significant impacts to the important habitat and wildlife within the GEA, including, but not limited to, fragmentation impacts, noise and vibration impacts, collision impacts, water quality and water flow impacts, construction and maintenance impacts, and growth-inducing impacts; (6) it improperly defers the identification of mitigation measures or standards and/or improperly relies upon uncertain, vague and unenforceable mitigation "strategies;" (7) it fails to provide an intelligible L029-11

[18] 14 Cal. Code Regs. ("CEQA Guidelines") § 15002, subd. (a)(1).
[19] *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.
[20] CEQA Guidelines § 15002, subd. (a)(2)-(3); *see also, Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564; *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400.
[21] CEQA Guidelines § 15092, subd. (b)(2)(A)-(B).

comparison of the environmental impacts of the Pacheco Pass alignments with the Altamont Pass alignments; (8) it impermissibly defers identification of the environmentally preferred alternative; and (9) for numerous other reasons as described throughout this document and its supporting exhibits and appendices. L029-11 cont'd

The Authority must correct these shortcomings and recirculate a revised DEIR/S for public review and comment before it may choose a preferred HST alignment that may impact the GEA.

III. THE DEIR/S FAILS TO ADEQUATELY DESCRIBE THE PROJECT SETTING

The DEIR/S employs an inaccurate and incomplete description of the project setting, thereby rendering the impact analysis legally deficient. An accurate description of the environmental setting is critical because it establishes the baseline physical conditions against which a lead agency can determine whether an impact is significant.[22] Under CEQA and NEPA, an EIR must include a description of the physical environmental conditions in the vicinity of the project from both a local and regional perspective.[23]

The DEIR/S must provide an accurate description of the environmental baseline, because "[t]he impacts of the project must be measured against the 'real conditions on the ground.'"[24] While the absence of information in the DEIR/S does not per se constitute a prejudicial abuse of discretion, "a prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process."[25] L029-12

Here, the DEIR/S fails to describe the sensitive and critical North/South Corridor of the GEA that the proposed Henry Miller Road alignment would bisect. The DEIR/S also fails to identify the areas of the GEA that currently lack formal protection and, thus, are particularly vulnerable to growth impacts and to purchase

[22] CEQA Guidelines § 15125, subd. (a).
[23] *Id*; 40 C.F.R. § 1502.15.
[24] *Save Our Peninsula Committee v. Monterey Board of Supervisors* (2001) 87 Cal.App.4th 99, 121.
[25] *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1355.

by land speculators. The DEIR/S description of the biological resources in the GEA that may be impacted by the HST is also incomplete. The DEIR/S fails to conduct biological surveys along the proposed alignments and instead relies upon databases that are recognized as incomplete. As a result, the DEIR/S fails to identify the potential existence of important biological resources located in the GEA that may be affected by the Project such as the California tiger salamander. The DEIR/S also incorrectly suggests that the Henry Miller Road Alignment would run adjacent to the GEA, when, in fact, the Henry Miller Road Alignment is *within* the GEA.[26] These failures are fatal to the DEIR/S as they preclude any semblance of informed decision-making and informed public participation. L029-12 cont'd

The inadequate consideration and documentation in the DEIR/S of existing environmental conditions renders it impossible for the agencies and general public to assess the impact of the proposed Pacheco Pass alignments, to determine appropriate mitigation measures for those impacts and to determine an environmentally preferred alternative. The description of the environmental setting in the DEIR/S thus is not only, in and of itself, inadequate as a matter of law, but it also taints the impact analysis, alternatives analysis and mitigation findings, rendering them legally inadequate as well.[27]

IV. THE DEIR/S FAILS TO ADEQUATELY DESCRIBE THE PROJECT

An accurate and stable project description is the *sine qua non* of an informative, legally adequate EIR.[28] A legally sufficient project description must contain a "general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities."[29] While an EIR need not contain a design-level description of the project, it must contain sufficient specific information about the project to allow an evaluation and review of its environmental impacts.[30] Without an accurate description on which to base an EIR's analysis, CEQA's objective of furthering public disclosure and informed environmental L029-13

[26] See DEIR/S at p. 3.16-11.
[27] *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 729.
[28] *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192.
[29] CEQA Guidelines § 15124, subd. (c).
[30] *Cry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20.

decisionmaking would be impossible, and consideration of mitigation measures and alternatives would be rendered useless.[31] L029-13 cont'd

In the case at hand, the DEIR/S provides an incomplete project description in its summary section and "Project Description" section. Instead, critical details of the project, including, but not limited to, significant construction activities, engineering and operations aspects of the project, are buried in the DEIR/S appendices or in referenced studies. As a result of the DEIR/S' failure to discuss or to identify key project components, potentially significant environmental impacts are not adequately described, analyzed or addressed.

For example, the DEIR/S fails to clearly state how often trains will pass by on these tracks. An appendix to the Statewide HST Program EIR/S states that at least 134 total daily trains will pass through Los Banos; an average of more than one train every 11 minutes.[32] However, trains would be expected to pass through more frequently during peak hours and less frequently during off-peak hours. This is critical Project information for establishing potential visual, noise, vibration, and wildlife collision impacts and for providing the public with the real picture of what will be going through their parks, wildlife refuges, hunting clubs and neighborhoods. Yet, it is utterly absent in the body of the DEIR/S itself. L029-14

The summary section and "Project Description" section of the DEIR/S also fail to clearly describe the existence, location and size of appurtenant operational and maintenance facilities. These facilities are a major component of the project and will, themselves, result in numerous significant impacts. Based on the estimated power needs of the HST system, 20,000 square foot power supply stations will be necessary every 30 miles. 7,5000 square foot switching stations would be required at approximately 15 mile intervals. 5,000 square foot paralleling (booster) stations would be required at approximately 7.5-mile intervals. Fleet storage/service facilities and inspection/light maintenance facilities would also be required. The location and construction of these appurtenant facilities must be disclosed in the project summary and/or description sections of the DEIR/S. L029-15

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[31] *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192-193, 197-198, 203.
[32] See DEIR/S, High Speed Train Operations Report, Appendix E (online at http://www.cahighspeedrail.ca.gov/eir/pdf/rgn_stdies/state/Operations/Op_App_E.pdf).

The DEIR/S not only fails to adequately disclose the existence and location of these appurtenant facilities in the project summary and description sections, it also fails to adequately evaluate the impacts of these facilities in its evaluation of Project impacts. The evaluation of wetland impacts, agriculture impacts, biological impacts and other impacts do not appear to take these facilities into account. L029-15 cont'd

The DEIR/S also fails to fully describe key project features such as noise barriers, which are identified as mitigation measures in the DEIR/S. Such barriers could have devastating impacts on wildlife and further fragment habitat areas.[33] L029-16

Another key project feature that the DEIR/S fails to adequately describe is the major crossing it must build over the San Joaquin River. Under the proposed Pacheco Pass alignment, this crossing would occur just a few miles from the sensitive habitat of the GEA. Yet, the DEIR/S fails to identify this project component or to describe how this undertaking would be accomplished. L029-17

The DEIR/S also fails to describe where a Merced area station would be located if the Henry Miller Road alignment is selected. The DEIR/S ridership analysis assumes that a Pacheco Pass alignment will include riders traveling to and from the Merced area. However, the Henry Miller Road alignment would skip Merced during the initial Los Angeles to San Jose phase of the project. The DEIR fails to address where a Merced area central valley station would be located. L029-18

The Statewide HST Program EIR/S initially proposed placing a station in Los Banos. Due to widespread concern over the impacts from locating a station in the heart of the GEA, the HSRA announced that it would withdraw the Los Banos station from consideration. The DEIR/S must be revised to explain where a Merced area central valley station would be located if the Henry Miller Road alignment was selected.

If these and all other key project features are not thoroughly described, related impacts cannot be evaluated and mitigated, and the relative impacts of alternatives cannot be meaningfully assessed. These and other omissions in the description of the Project must be corrected in a revised DEIR/S. L029-19

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[33] Appendix 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)), p. 44-47.

V. THE EVALUATION OF THE HENRY MILLER ROAD ALIGNMENT'S IMPACT ON THE GEA LACKS FOUNDATION AND IS ARBITRARY AND CAPRICIOUS

L029-20

The DEIR/S is legally inadequate because it concludes without any foundation and contrary to all available evidence that the Henry Miller Road alignment would not have any impact on the GEA.[34] This conclusion is particularly troublesome because the potential for the Henry Miller Road alignment to negatively impact the GEA had been explained to HSRA authority staff numerous times in prior written and oral comments and personal meetings. The fact that the DEIR/S recognizes the Highway 140 alignment as potentially impacting the GEA, but not the Henry Miller Road alignment, unfortunately suggests that the DEIR/S is a results-orientated document intended to support selection of the Henry Miller Road alignment rather than to fairly and neutrally evaluate Project alternatives.

A couple of factors underscore this impression of impropriety. First, the Henry Miller Road alignment is the only alignment evaluated in the DEIR/S that was also proposed in the original Statewide HST Program EIR/S. This suggests a strong preference for this alignment has been built into the process. Second, when the NOP was first released, HSRA staff informed counsel for the GWD, GRCD and GCELDF that the DEIR/S would evaluate a Pacheco Pass alternative that avoided the GEA altogether. No such alternative is included in the DEIR/S.

The DEIR/S is correct to identify the proposed alignment along Highway 140 as potentially significantly impacting the GEA since it will create new fragmentation impacts. The Henry Miller Road alignment, however, poses an even greater danger to the GEA because it would further separate an already fragmented, critical southern spur of the GEA from the rest of the contiguous wetlands.

Contrary to the assumptions made in the DEIR/EIS, construction of a few wildlife underpasses alone would likely be insufficient to address this impact, especially along Henry Miller Road. Fragmentation does not require complete separation. Rather, it is a relative and cumulative problem. After some threshold

[34] DEIR/S at p. 3.15-46 ("The Henry Miller alignment alternatives would not impact the GEA").

of fragmentation is exceeded, movement of individuals will no longer occur regularly enough to maintain the population of a fragmentation-sensitive species. L029-20 cont'd

The area along Henry Miller Road is already dangerously fragmented. A study by noted conservation biologist Reed Noss concluded that "[a]ny further fragmentation of the vulnerable linkage between the north and south units of the Grassland Management Area could well provide the 'final blow' in fragmenting the wetland ecosystem" and "could have a profound effect on the movement of waterfowl between different parts of the refuges they now utilize on a daily basis." Rich Wright, staff biologist for the GWD and GRCD, states that the proposed alignment along Henry Miller Road could very well be this final blow.

Unfortunately, the DEIR fails to disclose or evaluate the risks of the Henry Miller Alignment to the GEA or to assess cumulative fragmentation impacts whatsoever. Moreover, the DEIR astoundingly concludes that the Henry Miller Road alignment would not have any impact on the GEA.[35]

As stated above, this conclusion lacks any foundation and is arbitrary and capricious. No rationale or explanation is provided to support this conclusion. Conclusions in an EIR must be supported by facts and analysis.[36]

This conclusion also directly contradicts the undisputed evidence and the expert comments of numerous federal, state and local agencies that had been provided to the authority both during the prior Statewide HST Program EIR/S proceedings and during the NOP comment period for this proceeding.

On August 21, 2008, we submitted a public record request for all documents relied upon in reaching this conclusion. While a large list of general statewide databases and studies were provided in response, none of the documents identified evaluated or discussed the risk to the GEA and its resources from creating barriers along Henry Miller Road. Moreover, none of the extensive reports and studies on this issue that we provided the HSRA during the NOP comment period was consulted. In addition, prior comments from the U.S. Fish & Wildlife Service and the California Department of Fish & Game were also ignored and not included in the list of documents consulted. Indeed, it is not clear what the purpose of the NOP L029-21

[35] DEIR/S at p. 3.15-46.
[36] *Santiago Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 831.

comments were, given that the extensive comments submitted on this issue were wholly ignored in the preparation of this document. L029-21 cont'd

VI. THE DEIR/S FAILS TO IDENTIFY THE CROSSING OF THE GEA AS AN AREA OF CONTROVERSY

The DEIR/S is also deficient because it fails to identify the potential impact of the Pacheco Pass alignments on the GEA as an "area of controversy" in the document summary section. CEQA Guidelines provide that the summary of an EIR "shall" identify "[a]reas of controversy known to the Lead Agency including issues raised by agencies and the public."[37] The most meaningful and useful part of an EIR for decisionmakers and the public is the executive summary. As such, failure to identify all areas of controversy in the executive summary calls into question the integrity of the document, making it an unreliable and useless decisionmaking tool. L029-22

During the Statewide HST Program EIR/S proceedings and during the NOP comment period, literally thousands of pages of comments were submitted on this issue by federal, state and local agencies and non-profit organizations. The proposal to route the HST system is controversial and almost universally opposed by the federal, state and local agencies with jurisdiction over this resource. This controversy must be identified in the EIR/EIS summary.

VII. THE DEIR/S FAILS TO ADEQUATELY EVALUATE PROJECT IMPACTS

The evaluation of potential impacts to the GEA contained in the DEIR/S is woefully inadequate. Both CEQA and NEPA require that the DEIR/S identify all potentially significant Project impacts and identify feasible mitigation measures to reduce those impacts to less than significant.[38] The DEIR/S fails to comply with these requirements by failing to identify and mitigate potentially significant impacts related to the GEA, including impacts associated with construction and operation of the Project and impacts associated with population growth, land L029-23

[37] CEQA Guidelines § 15123, subd. (b)(2).
[38] Pub Resources Code §§ 21002.1, subd. (a), 21100, subd. (b)(1) & (b)(3); CEQA Guidelines §§ 15126, subd. (a), 15126.4, 15143; 40 C.F.R. §§ 1502.16, 1508.8, 1508.25.

speculation and urban encroachment induced by the alignment of the HST through the GEA and by the placement of HST stations in Merced County. L029-23 cont'd

The DEIR/S attempts to excuse these failings by stating that it is a "program" EIR/EIS and that more detailed analysis of impacts and mitigation measures will be given in subsequent project-specific EIR/S. The DEIR/S, however, also states that a preferred alignment will be chosen in the final version of this DEIR/S *without any further environmental review*. Accordingly, even though a subsequent project-level EIR/EIS will be prepared, the potential impacts of choosing a HST alignment that passes through the GEA must be evaluated and mitigated now in the program DEIR/S. Evaluation and mitigation of these impacts may not be deferred until after a decision on alignment has already been made. Such post-hoc review is too late and is inconsistent with CEQA's goal of informed decision-making.

The High-Speed Rail Authority should correct these errors by analyzing all of the Project's potential impacts and identifying feasible and enforceable mitigation measures in a revised DEIR/S that is circulated for public review.

A. A Program DEIR/S Must Provide Sufficiently Detailed Analysis To Support The Decisions Being Made In Reliance Upon It

A program EIR may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.[39] Program EIRs allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.[40] L029-24

Subsequent activities in the program must be examined in light of the program EIR to determine what additional environmental documents must be

[39] CEQA Guidelines § 15168, subd. (a).
[40] CEQA Guidelines § 15168, subd. (b)(4).

prepared.[41] If the potential impacts of the subsequent activity were not fully examined in the program EIR, a new EIR or negative declaration would have to be prepared to address these impacts.[42]

L029-24 cont'd

Where an EIR is a program EIR, it must be sufficiently detailed to provide a full analysis of the potential environmental impacts of any discretionary decisions that would be made in reliance on the EIR, but may defer to a later study full analysis of the potential environmental impacts of actions or decisions that would not be taken until after further environmental study.[43] In the case at hand, the DEIR/S states that its intended use is to choose a preferred alignment between the Bay Area and the Central Valley.[44] In order to make such a choice, the DEIR/S must first fully analyze all the potential impacts that may arise if a particular alignment is chosen and it must identify feasible mitigation measures to address these impacts.

CEQA prohibits deferring analysis of these impacts under the guise of "tiering." Both NEPA and CEQA require analysis of a project's impacts at the "earliest possible stage, even though more detailed environmental review may be necessary later."[45] This requirement holds regardless of any intention to undertake site-specific environmental review for future project phases.[46] California courts require detailed analyses of all potentially significant impacts that may result from a project. Under CEQA, an EIR must focus on the changes in the environment that would result from the project.[47] An EIR must examine all phases of the project including planning, construction and operation.[48]

A lead agency cannot ignore the requirement for an analysis of impacts from planning, construction or operation or defer the requirement to identify feasible mitigation measures simply by deferring the analysis in a "program" EIR.[49] In

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[41] CEQA Guidelines § 15168, subd. (c).
[42] CEQA Guidelines § 15168, subd. (c)(1).
[43] CEQA Guidelines § 15162, subd. (b); *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182.
[44] DEIR/S at 1-12.
[45] *McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136, 1147; see 40 C.F.R. §§ 1501.1, 1501.2.
[46] *Stanislaus Nat'l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.
[47] CEQA Guidelines § 15161.
[48] *Id.*
[49] *Stanislaus Nat'l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.

Stanislaus Natural Heritage Project, the County asserted that a specific plan EIR was both a "program EIR" for some aspects of the project and a "project-level" EIR for other aspects.[50] The court rejected the County's argument that it could review certain project phases and their environmental impacts in the future: L029-24 cont'd

> the County's approval of the project under these circumstances [would] defeat [...] a fundamental purpose of CEQA: to "inform the public and responsible officials of the environmental consequences of their decisions *before* they are made."[51]

The court held that tiering is not a device for deferring the identification of significant environmental impacts that the adoption of a specific plan could be expected to cause. The court stated that calling a specific plan a "program" does not relieve an agency from having to address the significant effects of that project.[52]

The High-Speed Rail Authority's approach in this case fails to provide the requisite level of review required by CEQA. The DEIR/S fails to adequately describe the Project setting, fails to adequately describe the Project itself, fails to analyze Project impacts, and fails to mitigate impacts that it does identify with specific, enforceable measures. Rather, the document repeatedly defers critical analysis and Project description on the grounds that the DEIR/S is a program EIR/S. The DEIR/S' vague and tentative analysis with respect to numerous Project elements precludes a full and proper analysis of Project impacts. Equally flawed, the DEIR/S repeatedly determines that Project impacts would not be significant based solely on assumptions that vague and unspecified mitigation measures would be identified in later documents.

A program EIR/EIS may defer analysis of the impacts of decisions that would not be made until after additional environmental review. Here, however, the DEIR/S states that the preferred alignment will be chosen in the final version of this DEIR/S *without any further environmental review*. Accordingly, the potential impact of choosing a HST alignment that passes through the GEA must be

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[50] *Id.* at 202.
[51] *Id.* at 195 (emphasis added), quoting *Laurel Heights Improvement Association v. Regents of University of California* ("*Laurel Heights II*") (1993) 6 Cal.4th 1112, 1123.
[52] *Id.* at 197.

evaluated now if the DEIR/S is to be relied upon to support a decision that would commit the HSRA to such an alignment. L029-24 cont'd

B. The DEIR/S Must Meaningfully Evaluate All Significant Environmental Impacts

Both CEQA and NEPA require that the DEIR/S identify and analyze all direct and indirect potentially significant environmental impacts of a project.[53] A significant environmental impact is "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."[54] In preparing an EIR, a lead agency is required to

> analyze the relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human uses of land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality and public services. The EIR [must] also analyze any significant environmental effects the project might cause by bringing development and people into the area affected.[55]

L029-25

The primary function of an EIR is to "inform the public and responsible officials of the environmental consequences of their decisions before they are made."[56] To fulfill this function, an EIR must be detailed, complete, and must "reflect a good faith effort at full disclosure."[57] An adequate EIR must also contain facts and analysis, not just an agency's conclusions.[58]

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[53] Pub. Resources Code § 21100, subd. (b)(1); CEQA Guidelines § 15126.2, subd. (a); 40 C.F.R. §§ 1508.8, 1502.16.
[54] CEQA Guidelines § 15382.
[55] CEQA Guidelines § 15126.2, subd. (a).
[56] *Laurel Heights Improvement Assn. v. Regents of the University of California* (1993) 6 Cal.4th 1112, 1123.
[57] CEQA Guidelines § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.
[58] See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568 (1990).

In the case at hand, the DEIR/S does not meet these requirements. The DEIR/S fails to provide the necessary facts and analyses to allow the Authority and the public to make an informed decision concerning the significance of the Project's impacts. The DEIR/S fails to identify, whatsoever, a number of potentially significant Project impacts. In many cases, the DEIR identifies impacts generally, but fails to evaluate them in any context or to describe the potential scope or severity of the impacts. The DEIR/S also frequently fails to indicate whether an impact is considered significant, less than significant or reduced to less than significant after mitigation. Where the DEIR/S does make findings as to an impacts significance, it often fails to provide supporting evidence or the analytic rationale for its conclusions.

L029-25 cont'd

C. The DEIR/S Fails To Adequately Evaluate the Potential Biological Impacts Of The HST On GEA Wildlife and Habitat

The DEIR/S is legally deficient because it merely lists biological resources while deferring evaluation of impacts on these resources. Once the presence of the biological resources in the GEA have been identified and described, the DEIR/S must then analyze how the direct and indirect impacts of the project and cumulative projects would affect these resources.[59] The discussion should include relevant specifics of the area, the resources involved, physical changes, and alterations to the ecological systems.[60]

L029-26

What little analysis that the DEIR/S does provide of the project's biological impacts is extremely cursory and incomplete. The DEIR/S merely provides narrative lists of species and habitat that may be potentially affected by the project. There is no meaningful evaluation of how the project may adversely affect species or habitat. As a result, identification of mitigation measures is precluded. In addition, the DEIR/S is unable to provide any guidance as to which alignments will result in impacts that may be mitigated to a level of insignificance and which alignments will result in impacts that may be significant and unavoidable.

By relying solely on incomplete statewide data sets, the DEIR/S also fails to identify numerous potentially impacted biological resources, including impacts on

[59] CEQA Guidelines Section 15126, subd. (a).
[60] *Id.*

the California Tiger Salamander and impacts on critical migratory waterfowl and shorebird habitat. The failure to require location-specific field studies of biological resources is fatal to the DEIR/S' stated purpose of providing sufficient analysis to permit an informed selection of a preferred alignment between the Central Valley and the Bay Area. The Authority cannot base a possible selection of a preferred alignment through the GEA on such incomplete data. L029-26 cont'd

A complete analysis of the potential biological impacts of the HST on the GEA is essential due to the considerable importance of this area. The complex of wetland habitats within the GEA is of special significance because the size, juxtaposition, and connectivity of the different wetland types provide a unique opportunity to sustain migratory and resident wildlife populations.[61] The associated grasslands surrounding the semi-permanent wetlands are also of special importance, because they provide nesting areas for waterbirds, important food sources for grazers such as geese, and essential habitat for listed species and numerous upland wildlife.

Prior to the selection of an alignment through this area, a meaningful evaluation of the Project's potential biological impacts on this important ecological resource must be made. These potential impacts include interruption of habitat connectivity, train noise and vibration impacts, shock wave impacts, train collisions with large animals, electrocution impacts, water quality impacts and construction impacts.

1. The DEIR/S Fails To Meaningfully Evaluate The Impact The Proposed Pacheco Alignments Would Have Due To Their Bisection And Fragmentation Of The Grassland Ecological Area

a. Interference With Wildlife Corridors

L029-27

The proposed Henry Miller Road alignment runs directly through the Grassland Ecological Area, fragmenting a critical southern spur of the Grassland Ecological area from the rest of the contiguous wetlands and isolating another small section of wetlands as well. This route cuts across the southern part of the Volta

[61] Appendix 11, Fredrickson, Leigh H. and Laubhan, Murray K., *Land Use Impacts and Habitat Preservation in the Grasslands of Western Merced County, CA* (February 1995).

State Wildlife Management Area and the Los Banos State Wildlife Management Area (the oldest Wildlife Management Area in the state - created in 1929) and severs the important wildlife corridor connecting the North and South grasslands.[62]

L029-27 cont'd

The proposed GEA North alignment would also fragment the Grasslands. The GEA North alignment would create a new physical barrier that bisects the southern half of the China Island Unit of the North Grasslands Wildlife Area along State Highway 140.

The proposed Pacheco alignments would thus both create physical barriers bisecting the GEA and would likely result in significant fragmentation impacts on the wetland habitat and wildlife.[63] Such potential impacts include interference with wildlife movement and migration corridors, interference with drainage and the flow of irrigated water through the managed wetlands and interference with access to hunting clubs.

These impacts could be particularly dire along the Henry Miller Road alignment. As discussed *supra*, the linkage between the north and south units of the GEA are already dangerously fragmented along Henry Miller Road. Any further fragmentation could be the "final blow" to this vulnerable corridor and result in significant disruption of migratory bird movement patterns. [64]

The DEIR/S does state that construction of wildlife overcrossings and undercrossings could be considered to provide wildlife movement corridors.[65] However, no specifics or analysis of such measures are provided in the DEIR/S.

Moreover, a few underpasses alone would not be sufficient to address this impact. Fragmentation does not require complete separation. Rather:

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[62] See Appendix 1, Map of Federal, State and Privately Owned Lands in GEA. The Pacheco Alignment is proposed to run just north of and parallel to Henry Miller Road, isolating the sections of the GEA south of this area. See also Appendices 2, 3 & 19.
[63] Appendix 4, *Dr. Weissman Comments.*
[64] Appendix 8, *Grassland Land Use and Economics Study*; Appendix 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)), p. 47.
[65] DEIR/S at p. 3.15-67.

> it is a relative and cumulative problem. After some threshold of fragmentation is exceeded, movement of individuals will no longer occur regularly enough to maintain the population of a fragmentation-sensitive species. Until detailed, long-term studies of species in the [GEA] are performed, the prudent course is to prevent any further fragmentation of the system. Indeed, professional opinion among scientists is now firm that the burden of proof in such matters must rest on those who propose activities that may fragment or otherwise degrade ecosystems.[66]

L029-27 cont'd

The DEIR/S must provide evidence for the success of the proposed mitigation measures in a wetland environment like the GEA and provide more detail on the number, location and type of such structures to facilitate wildlife movement across the railroad right-of-way. Without such information, the impact of the proposed Pacheco Pass alignments on the GEA cannot be fairly assessed.

b. Disruption Of Canals And Waterways

Wetland ecosystems are also sensitive to disruption of water flow and other hydrological impacts that accompany fragmentation.[67] For example, drainage canals, dikes, and roads have had severe effects on the hydrology, vegetation, flora and fauna of the Everglades.[68]

L029-28

In the case at hand, the proposed Pacheco Pass alignments would bisect several waterways within the GEA essential to the management of these critically important wetlands and wildlife habitat.[69] The Santa Fe and San Luis Canals convey water to more than 31,000 acres of public and privately owned wetlands. Mud Slough South (a natural channel) and the Porter-Blake Bypass serve as drainage facilities for thousands of acres of additional wetlands, thus making possible the timely release of water, a crucial element in the management of seasonal habitat.

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[66] Appendix 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)), p. 47.
[67] *Id;* see also Appendix 4, *Dr. Weissman Comments.*
[68] *Id.*
[69] Appendix 7, *Don Marciochi Letter.*

The DEIR/S, however, fails to even identify these waterways, much less analyze the potential impacts the Project may cause by bisecting them. Furthermore, no mitigation measures are proposed or identified to ensure that the design and construction of the Project will not impede the flow and maintenance of water in these channels. Without such information, the impact of this alignment on the GEA cannot be fairly assessed.

L029-28 cont'd

The bisection of these waterways by the HST may also have a significant impact on important wildlife corridors. Among the threatened species that would likely be affected by the bisection of the GEA is the giant garter snake (*thamnophis gigas*), a state and federally listed threatened species.[70] This snake is historically known in the GEA and has been recently documented in waterways both north and south of the City of Los Banos.[71] These snakes were found in both natural channels and water conveyance canals. It is well documented that the giant garter snake inhabits waterways, including irrigation and drainage canals, sloughs and low gradient streams.

The San Luis Canal, which would be bisected by the Henry Miller Road alignment, has been found to contain the necessary habitat components for the giant garter snake, including: adequate water during the snake's active season, populations of food organisms, emergent, herbaceous wetland vegetation for escape cover and foraging, and grassy banks and openings in waterside vegetation for basking.[72] In addition, the San Luis Canal functions as a movement corridor for the giant garter snake.[73]

The DEIR/S, however, fails to identify the potential for interference with waterway habitats and corridors. The Authority must assess the threat the HST project may pose to the giant garter snake's habitat and waterway corridor before it commits itself to a particular HST alignment.

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[70] Appendix 15, Dean Kwasny letter.
[71] *Id.*
[72] *Id.*
[73] *Id.*

c. Interference With Access To Hunting Clubs

The proposed bisection of the GEA by the HST also poses the potential to impede the access of GWD members to their hunting clubs.[74] The continued protection of these privately managed wetlands depends largely on the continued viability of these lands as private duck hunting clubs. Currently, 181 duck hunting clubs exist within the GWD and the GRCD. The DEIR/S fails to consider the impact that its proposed Pacheco Pass alignments may have on access to these clubs. This issue must be examined prior to any final decision being made as to the selection of this route. L029-29

2. Noise And Vibration

The DEIR/S compares the various routes for noise sensitivity and compares the HST alternative with the other alternatives. However, the evaluation of noise impacts in the DEIR/S lacks foundation and fails to clearly reveal what the actual noise exposure would be in decibels, at varying distances from the track as the HST passes through or adjacent to the GEA. The DEIR/S also fails to evaluate what impact noise and vibration may have on wildlife and habitat in the GEA.

The DEIR/S lacks foundation for its findings because it uses 100 decibels ("dBA") as the sound threshold for impacts to wildlife. However, the 2005 High Speed Ground Transportation Noise and Vibration Assessment cited as the basis for the DEIR/S noise analysis presents data showing wildlife impacts at sound levels as low as 77 dBA. Moreover, a Federal Railroad Administration ("FRA") report rates as a "severe impact" any case where the project noise exceeded 60 dBA where the ambient noise level was near 50 or 55 dBA Ldn, as would be the case in the GEA.[75] The FRA report also states that impacts on wild birds and mammals must be assessed by dB SEL rate, not just by the decibal rate. The SEL is a measure of all sound energy during an event expressed as the equivalent sound level with a duration of one second. L029-30

The DEIR/S concludes that "wildlife in natural areas would be minimally affected by train passbys at speeds of up to 180 mph at distances of 60 feet or

[74] Appendix 7, *Don Marciochi Letter.*
[75] Appendix 4, *Dr. Weissman Comments.*

more."[76] This DEIR/S fails, however, to make clear that wildlife within 60 feet would be *significantly impacted* by noise and vibration.[77]

L029-30 cont'd

Moreover, the DEIR states that trains running through flat and straight areas, such as the Henry Miller alignment through the GEA, will be traveling at speeds up to 220 miles per hour.[78] The DEIR/S, however, limits its evaluation of noise levels to 180 miles per hour train speed. Accordingly, it fails to evaluate the actual noise impacts the HST would have on the GEA.

In her attached comments, Dr. Weissman examines the available data on this issue and estimates that the Lmax noise from the train at 200 mph would be around 101.5 dB.[79] Even at high speed, the train will take three to four seconds to pass a point receptor. This means the SEL at 50 feet distance is probably around 105 to 110 dB. With 3 dB drop-off per doubling distance for a line source, the high-speed train will likely exceed a 100 dB SEL significance threshold for wild birds and mammals out to a distance of 500 feet.[80] This distance would increase significantly at a train speed of 220 miles per hour or at a significance level of 77 dB SEL.

Train frequency will also determine the overall impact of the project. However, the DEIR/S analysis fails to assess the impact of train frequency at all. Estimates contained in the appendices to the Statewide HST Program EIR/S show that the HST may pass through the GEA on an average of every 11 minutes, but as frequently as every 5 minutes during the busy portion of the business day. The high frequency means that startle effects will be frequent and that the overall sound level will rise substantially.[81]

Noise disturbances of wildlife in the GEA are of significant concern. Noise disturbances may displace waterfowl from feeding grounds, may cause desertion of nests, may increase energetic costs associated with flight, and may lower productivity of nesting or brooding waterfowl, among other impacts.[82] The DEIR/S

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[76] DEIR/S at p. 3.4-6.
[77] See Appendix 4, *Dr. Weissman Comments.*
[78] DEIR/S at p. 3.4-9.
[79] *Id.*
[80] *Id.*
[81] *Id.*
[82] Appendix 12, U.S. Fish & Wildlife Leaflet 13.2.15; Appendix 4, *Dr. Weissman Comments* at pp. 3-4 (citing numerous reports).

must evaluate the potential impacts of HST train noise and vibration on the sensitive wildlife species in the GEA before the Authority may commit to an alignment that would run through this area. L029-30 cont'd

3. Shock Wave

High-speed trains will produce a significant shock wave each time they pass.[83] The shock wave can be felt at varying distances from the train, depending upon its speed. The shock wave has been likened to the impact of a supersonic plane breaking the sound barrier. It could produce a startle response in wildlife or, if birds are flying within the immediate area where the train passes, it could possibly interrupt their flight.[84] The DEIR/S should quantify the shock wave that emanates from the train moving at over 200 mph, and determine its potential effects on wildlife in the GEA. L029-31

4. Collisions With Trains

Animals that may be crossing the tracks in the GEA can be hit by one of some 100 plus trains per day. Although a likely mitigation for the Project will be subterranean tunnels to allow wildlife passage (EIR/S p. 3.15-31), there may still be substantial numbers of wildlife that attempt to cross the track at grade level and may be hit by trains.

Species at risk include the giant garter snake, San Joaquin kit fox, tule elk and bobcat.[85] The giant garter snake, for example, can be found as far away as 820 feet from the edge of marsh habitat; U.S. Fish and Wildlife service recommends a minimum buffer of 200 feet from the banks of giant garter snake habitat.[86] The HST project, however, proposes trains running by every 5 to 11 minutes right through the waterways inhabited by this threatened snake. L029-32

The DEIR/S should estimate the mortality to each wildlife species that is vulnerable to train collisions and the effect of this mortality on the respective

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[83] Appendix 4, *Dr. Weissman Comments.*
[84] *Id.* (citing Howe M. S. "The compression wave produced by a high-speed train entering a tunnel." *Proceedings: Mathematical, Physical & Engineering Sciences*, 1 June 1998, vol. 454, no. 1974, pp. 1523-1534.)
[85] Appendix 4, *Dr. Weissman Comments*; Appendix 15, Dean Kwasny letter.
[86] Appendix 15, Dean Kwasny letter.

populations. For special status species such as the giant garter snake or the San Joaquin kit fox, the DEIR/S should also discuss whether these train impacts would be substantial enough to cause further decline in the status of the species, or would interfere with the recovery of the species. Mitigation measures such as fencing must be evaluated to determine their effectiveness in keeping out the giant garter snake and other potentially impacted species. L029-32 cont'd

5. Construction and Maintenance Impacts

The DEIR/S fails to meaningfully evaluate the potential impact of construction and maintenance activities on the GEA. The duration of noisy and invasive construction activities through and adjacent to the GEA may severely disrupt biological species, habitat, water quality and air quality. In addition, the construction of the San Joaquin River crossing could pose serious impacts to water quality and riparian habitat. The DEIR, however, fails to evaluate the scope of such impacts and fails to evaluate whether mitigation measures are available to reduce these impacts either substantially or to a level of insignificance. While the DEIR provides a general description of some construction activities, it fails altogether to describe the maintenance activities that may be required over the life of the Project. L029-33

Analysis of potential construction and maintenance impacts on the GEA is required before choosing a preferred alignment because this information could tip the preferred selection to a more developed route where fewer collateral impacts will be imposed to build and maintain the HST. Potential construction impacts on the GEA that must be studied in a revised DEIR/S include the impacts of truck and other vehicular traffic, equipment storage and laydown areas, blasting, and pile-driving, and temporary disruption of water supply deliveries.[87] If this information is not provided early in the decisionmaking process, a fully informed decision cannot be made.

6. Water Flow and Water Quality

The DEIR/S fails to acknowledge the potential impacts the Project may have on water flow and water quality in the GEA. The HST Project has the potential to cause significant impacts to the complex of natural and man-made channels that move water through the wetlands, establish the waterfowl habitat and support L029-34

[87] See Appendix 4, *Dr. Weissman Comments.*

nearly all the GEA ecological functions.[88] Without illumination of these potential impacts, the Authority would be unable to make an informed decision as to the preferred route between the Central Valley and the Bay Area. L029-34 cont'd

Construction of the HST through the GEA would entail tremendous wetland fill and the importation of possibly a million cubic yards of fill, depending on the actual route taken. It is unlikely that the earth for berms and other support structures could be excavated from along the route due to soil weight bearing limitations. Berms and other support structures would need to be keyed in to the substrate, meaning that the organic top layer would be removed and drainage ditches and water pumps would be installed to allow engineered placement of fill. Even where trestle construction crossed water channels, there would be disturbance from clearing and pile driving.[89]

Construction may alter the present water flow patterns, introduce sediment and create stagnant sections of the wetlands producing essentially permanent water quality degradation. Water quality impacts on wildlife range from altered growth of feed to increased risk of avian botulism.[90]

The Grassland Water District has spent much time and money managing the application of water in the Grasslands. Historically, water quality problems in the Grasslands have had a tremendous impact on wildlife. Imposition of a hydraulic barrier across the GEA will materially impact the south-to-north water management in the GEA, which is essential to maintaining water quality.[91] The potential impact that construction of a HST would have on water flow and water quality in the GEA must be evaluated before the Authority chooses its preferred alignment.

VIII. DEIR/S IMPROPERLY DEFERS MITIGATION

The DEIR/S is further inadequate because, throughout the document, mitigation measures are improperly deferred or consist of vague and unenforceable L029-35

[88] Appendix 4, *Dr. Weissman Comments.*
[89] *Id.*
[90] *Id.*
[91] *Id.*

mitigation "strategies." Both CEQA and NEPA require the proposal and description of mitigation measures sufficient to minimize the significant adverse environmental impacts identified in the EIR/EIS.[92] This requirement is considered the heart of CEQA. CEQA imposes an affirmative obligation on agencies to avoid or to reduce environmental harm by adopting feasible project alternatives or mitigation measures.[93] Without an adequate analysis and description of feasible mitigation measures, it would be impossible for the Authority to meet this obligation.

L029-35 cont'd

Mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or to compensate for that impact.[94] A public agency may not rely on mitigation measures of uncertain efficacy or feasibility.[95] "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.[96] Mitigation measures must be specific and fully enforceable through permit conditions, agreements or other legally binding instruments.[97] Mitigation measures that are vague, or so undefined that it is impossible to evaluate their effectiveness, are legally inadequate.[98]

An agency must identify mitigation measures for significant impacts *before* it issues a proposed EIR for public review.[99] Mitigation measures adopted *after* project approval cannot validate the issuance of an EIR, since this deferral denies the public the opportunity to comment on the project as modified to mitigate impacts.[100] Accordingly, deferral of the formulation of mitigation measures to post-approval studies is generally impermissible.[101] An agency may only defer the

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[92] Pub. Resources Code §§ 21002.1, subd. (a), 21100, subd. (b)(3); 40 C.F.R. §§ 1502.14, subd. (f), 1502.16, subd. (h); *Robertson v. Methow Valley Citizens Council* (1989) 420 U.S. 332, 352.
[93] Pub Resources Code §§ 21002-21002.1.
[94] CEQA Guidelines § 15370.
[95] *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available).
[96] CEQA Guidelines § 15364.
[97] CEQA Guidelines § 15126.4, subd. (a)(2).
[98] *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79.
[99] Pub. Resources Code § 21061.
[100] *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393]; *Quail Botanical Gardens Foundation v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1604, fn. 5.
[101] *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309.
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formulation of mitigation measures when it "recognizes the significance of the potential environmental effect, commits itself to mitigating its impact, and articulates *specific performance criteria* for the future mitigation."[102] L029-35 cont'd

Here, the DEIR/S consistently fails to identify feasible mitigation measures capable of mitigating the significant environmental impacts of the project alternatives and cumulative impacts. Where the DEIR/S does identify potential impacts, it repeatedly fails to articulate specific, enforceable mitigation measures or mitigation performance criteria. Instead, the DEIR/S refers to what it calls "mitigation strategies." These "mitigation strategies" are almost entirely vague and unenforceable statements that lack any "specific performance criteria." Accordingly, it is impossible to determine their efficacy in reducing significant impacts to less than significant.

Nonetheless, the DEIR/S improperly and repeatedly concludes that significant impacts are rendered less than significant on the basis that unspecified "mitigation strategies" would be developed during future project-level review.[103]

In particular, the DEIR/S provides vague and insufficient mitigation measures for the following categories of impacts:

Construction:
"Potential construction impacts, which should be analyzed once more detailed project plans are available, can be mitigated by following local and state guidelines." DEIR/S page 3.3-20. L029-36

Noise and Vibration:
"More detailed mitigation strategies for potential noise and vibration impacts would be developed in the next stage of environmental analysis." DEIR/S page 3.4-22. "This program-level analysis has identified areas where future analysis should be given to potential HST-induced vibrations. The type of vibration mitigation and expected effectiveness will be determined as part of the second-tier project-level environmental analyses." DEIR/S page 3.4-22. L029-37

[102] *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1411 (emphasis provided), citing *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1028-1029.
[103] See, *e.g.*, DEIR/S Table 7.3-1.

Energy:
"The design particulars would be developed at the project-level of analysis...." DEIR/S page 3.5-17. L029-38

Land Use:
"Local land use plans and ordinances would be further considered in the selection of alignment alternatives and station location options. Project-level review would consider consistency with existing and planned land use, neighborhood access needs, and multi-modal connectivity opportunities." DEIR/S page 3.7-42. L029-39

Biological Resources:
"At this programmatic level of analysis, it is not possible to know precisely the location, extent, and particular characteristics of biological resources that would be affected or the precise impacts on those resources." DEIR/S page 3.15-65.

"Regulatory agencies will be consulted to determine appropriate mitigation ratios." DEIR/S page 3.15-65.

Development of future Biological Resources Management Plans that will include: L029-40

- "Specific measures for the protection of sensitive amphibian, mammal, bird, and plant species during construction." DEIR/S page 3.15-66.
- "Identification and quantification of habitats to be removed, along with the locations where these habitats are to be restored or relocated." DEIR/S page 3.15-66.
- "Procedures for vegetation analyses of adjacent protected habitats." DEIR/S page 3.15-66.
- "Specific parameters for the determination of the amount of replacement habitat for temporary disturbance areas." DEIR/S page 3.15-66.
- "Specification of performance standards for growth of re-established plant communities and cut and- fill slopes." DEIR/S page 3.15-66.
- "Measures to preserve topsoil and control erosion control." DEIR/S page 3.15-66.
- "Specific construction monitoring programs for sensitive species." DEIR/S page 3.15-66.

- "Specific measures for the protection of sensitive habitats to be preserved." DEIR/S page 3.15-66.
- Procedures for biological monitoring during construction activities to ensure compliance and success of protective measures. The monitoring procedures would (1) identify specific locations of wildlife habitat and sensitive species to be monitored, (2) identify the frequency of monitoring and the monitoring methodology (for each habitat and sensitive species to be monitored), (3) list required qualifications of biological monitor(s), and (4) identify reporting requirements. DEIR/S page 3.15-66.

L029-40 cont'd

Surface Waters, Runoff and Erosion

"Construction methods or facility designs to minimize potential impacts would be considered and used to the extent feasible." DEIR/S page 3.14-50.

L029-41

Groundwater:

"As part of the future project-level analysis, minimize development of facilities in areas that may have substantial groundwater discharge or affect recharge." DEIR/S page 3.14-51.

L029-42

4(f) and 6(f):

"Continue to apply [unspecified] design practices to avoid impacts to park resources, and when avoidance cannot be accommodated, minimize the scale of the impact." DEIR/S page 3.16-19.

"Apply [unspecified] measures at the project level to reduce and minimize indirect/proximity impacts as appropriate for the particular sites affected, while avoiding other adverse impacts (e.g., visual), such as noise barriers, visual buffers, and landscaping." DEIR/S page 3.16-19.

L029-43

"Apply [unspecified] measures to modify access to/egress from the recreational resource to reduce impacts to these resources." DEIR/S page 3.16-19.

For a number of the impacts identified above, the DEIR/S proposes deferring the development of mitigation measures until project-level review. CEQA and NEPA, however, require the Authority to identify feasible mitigation measures prior to taking an action that would rely on those mitigation measures. The

L029-44

Authority may not defer the requirement to identify feasible mitigation measures simply by deferring the analysis in a "program" EIR.[104] L029-44 cont'd

In the case at hand, the Authority has indicated that it intends to choose a preferred alignment between the Central Valley and the Bay Area solely on the basis of the analysis in the DEIR/S. In order to make such a choice, the DEIR/S must first fully analyze all the potential impacts that may arise if a particular alignment is chosen and it must also identify feasible mitigation measures to address these impacts. Each of the impacts identified above could face unique mitigation difficulties or costs as the HST passes through the GEA. Such difficulties could well tip the balance in the selection of a preferred alignment between the Central Valley and the Bay Area.

Identification of feasible mitigation measures after an alignment has already been chosen would defeat CEQA's goal of informed decisionmaking. Moreover, once an alignment is chosen, mitigation and avoidance options become limited. According to the DEIR/S, the proposed HST alignment alternatives would require relatively straight, flat, long linear features. As a result, moving or curving the alignment to avoid resources "might not always be feasible." The DEIR/S must be revised to identify specific, feasible mitigation and avoidance measures for these impacts prior to selection of an alignment.

To adequately protect GEA resources, mitigation measures that should be considered include: (1) requiring a tunnel under or an aerial structure over all sensitive areas of the GEA (wetlands and grasslands); (2) funding for studies to evaluate the potential impact of the HST on the GEA and to identify specific mitigation measures that shall be adopted; (3) identification of specific performance standards to ensure protection of the GEA's biological resources and waterways; (4) funding of post-construction studies and monitoring to evaluate impacts from Project operation; (5) requiring reduced speeds through the GEA in order to mitigate noise, vibration, shock wave and collision impacts; (6) payment to a fund for acquiring conservation and buffer zone easements; (7) conditioning construction on the completed acquisition of conservation easements for all unprotected GEA land and the completed acquisition of buffer zone easements to ensure no further incompatible adjacent growth; (8) adopting an enforceable, permanent bar on placing a HST station near Los Banos; (9) relocating the proposed Los Banos HST L029-45

[104] *Stanislaus Nat'l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.

maintenance station to Gilroy or Fresno; (10) identifying specific performance requirements to limit the air quality, water quality and biological resource impacts from construction and maintenance activities; and (11) seasonal restrictions on construction impacting the GEA to avoid impacts on migrating birds and other important species. This list is not comprehensive, but rather provides a starting point for meaningfully evaluating potential mitigation measures that could address Project impacts on the GEA. L029-44 cont'd

IX. THE DEIR/S' ANALYSIS OF GROWTH-INDUCING IMPACTS IS INADEQUATE AND INCOMPLETE

The DEIR/S fails to adequately evaluate and mitigate the growth-inducing impacts of the Pacheco Pass alignments. When preparing an EIR, the lead agency must identify, discuss and analyze the growth-inducing impacts of a proposed project.[105] A project must be analyzed to determine if it will facilitate and encourage population growth, economic growth or changes in land use and development patterns.[106] Similarly, NEPA requires that agencies consider the indirect effects of a proposed action, such as growth inducing impacts and other impacts related to induced changes in the pattern of land use, population density or growth rate.[107] L029-46

Mere identification of growth-inducing impacts, however, is not sufficient to meet the requirements of CEQA. Specific, enforceable mitigation measures to address impacts from this growth must also be identified and evaluated.

A project may indirectly induce growth by reducing or removing barriers to growth or by creating a condition that attracts additional population or new economic activity that is not currently planned. Here, the HST proposal will induce population growth and commuter traffic in the Merced/Los Banos area at a much greater rate than would occur otherwise by removing the barrier of accessibility to jobs in the Bay Area. According to the chart in Appendix 4-E of the DEIR/S, both the Altamont alignment and the Pacheco alignment could cut travel time between

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[105] CEQA Guidelines § 15126.2, subd. (d).
[106] *Id.*
[107] 40 C.F.R. § 1508, subd. (b).

Merced and San Jose to as little as 45 minutes. Such a commute would be short by Bay Area standards.

L029-46
cont'd

Nonetheless, the DEIR/S concludes that the HST would minimize the impacts associated with growth due to its inherent incentives for directing urban growth:

> "In short, either HST Network Alternative provides a strong incentive for directing urban growth and minimizing a variety of impacts that are frequently associated with growth. This outcome would be seen in results for resource topics such as farmland, hydrology, and wetlands, where the indirect effects of either HST Network Alternative are in some cases less than the No Project Alternative, even with more population and employment expected with the HST Network Alternative." DEIR/S page 5-32.

The DEIR/S' suggestion that this growth would be less than significant simply lacks credibility and is contrary to historic growth patterns in California. Historic growth patterns in California clearly demonstrate that accessibility to major employment centers triggers tremendous new growth from commuters.[108] Examples include: (1) the Auburn corridor as major new employers moved to the Sacramento region and north; (2) the Truckee area, which is approximately 1 hour from the major new job growth in the Auburn Corridor; and (3) Reno.[109] Numerous studies have also shown that the introduction of transportation facilities redirects growth.[110]

The introduction of the HST will dramatically shorten commute times between the Merced County area and the urban employment centers in the Bay Area, making the areas surrounding any proposed HST stations in the Merced area more attractive to commuters. The substantially lower cost of homes and property in the area would be a tremendous draw for Bay Area workers to move to the area.[111]

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[108] Appendix 17, *Watt Comments.*
[109] *Id.*
[110] *Id.*
[111] Appendix 17, *Watt Comments*, Attachment A, *California Real Estate Statistics for Merced and Santa Clara Counties.* As of the 2nd quarter of 2004, a median priced home in Merced County costs $228,000 and in Los Banos costs $265,500. By comparison, during the same quarter a median priced home in San Jose costs $507,750, nearly twice the cost of median priced home in the area near the

In her attached comments, Ms. Watt concludes that locating a train station adjacent to the GEA, in a largely rural agricultural area of Merced County, would result in significant localized urban encroachment and development pressures on this area that are either understated or simply ignored in the DEIR/S.[112] Ms. Watt also concludes that this growth will occur in suburban and rural sprawl patterns most harmful to habitat areas and farmland.[113]

L029-46 cont'd

Moreover, the pattern of growth may vary significantly depending on the alignment selected. Most worrisome is the proposed Henry Miller Road alignment, which is the only alignment that would not direct growth in Merced County in and around the urban boundaries of the City of Merced. Instead, the Henry Miller Road alignment would likely induce growth along the more rural areas around Los Banos. Even without a station in Los Banos, land speculation is likely to occur all along the Henry Miller Road corridor in anticipation that a Merced County station would eventually be permitted.

The studies reviewed by Ms. Watt have found that if alignments and stations are located in rural areas, growth and development in California could actually be redirected away from existing denser urban areas and into more remote rural areas where high value agricultural and habitat lands occur and where lower density requirements apply.[114] This would be far from a "smart growth" or beneficial effect of the HST. The DEIR/S must be revised to analyze the potential localized rural growth impacts that may arise from the Henry Miller Road alignment. The DEIR/S must also evaluate the impacts of land speculation along the Henry Miller Road alignment on the ability to obtain conservation easements on the portions of the GEA that have not yet been protected from development.

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proposed Los Banos station. In Gilroy during the same period, a median priced home costs $550,000.

[112] *Id.*

[113] *Id*

[114] *Id.*

X. THE DEIR/S FAILS TO DISCLOSE WHERE A MERCED COUNTY STATION WOULD BE LOCATED IF THE HENRY MILLER ROAD ALIGNMENT IS SELECTED

L029-47

The DEIR/S is further inadequate because it fails to disclose where a Merced County station would be located if the Henry Miller Road Alignment is selected. The Henry Miller Road alignment is the only proposed alignment that does not pass through the City of Merced prior to heading to the Bay Area. As a result, the Henry Miller Road alignment would skip Merced completely during the initial Los Angeles to San Jose phase of this project.

The HST Statewide Program EIR/S initially assumed that a Henry Miller Road alignment would serve Merced County via a Los Banos station. As a result of the concerns we and other commentators raised during the HST Statewide Program EIR/S proceedings over the substantial impacts a Los Banos stations would have on the GEA, the HSRA voted not to pursue a station option at Los Banos.[115]

The DEIR/S, however, fails to identify where else a Merced County station would be located. Without a Merced County station, there would be no HST access between Fresno and Gilroy.

Moreover, numerous sections of the DEIR/S suggest that a Los Banos station is still likely if the Henry Miller Road alignment is selected. For example, Figure 2.5-15 of the DEIR/S still shows a potential station near Los Banos. In addition, the ridership estimates relied upon in the DEIR/S and in the recent MTC ridership study assume significant ridership to and from Merced County. Without such ridership, the Henry Miller Road alignment will likely have significantly less revenue than the other alignments. No explanation is provided for how such ridership can be assumed for the Henry Miller Road alignment without a Los Banos station.

L029-48

In addition the DEIR states that a Fleet Storage/Service and Inspection/Light Maintenance Facility *will be* located along Henry Miller Avenue, immediately west of where SR-165 intersects Henry Miller Avenue, also parallel with Henry Miller Avenue.[116] The DEIR/S states directly that it will "[l]ocate HST maintenance and

L029-49

[115] See Notice of Preparation for DEIR/S (Nov. 14, 2005) at p. 2.
[116] DEIR/S at p. 2-45.

storage facilities within proximity to major stations/termini."[117] Such a facility would thus require a nearby or adjacent Los Banos area station stop.

L029-49 cont'd

A Fleet Storage/Service and Inspection/Light Maintenance Facility includes tracks for "lay-up" (parking) for trainsets, a service and inspection facility for inspection and light maintenance, and a train washer located on the yard approach track for exterior cleaning prior to daily train storage. In addition, adjacent to the service and inspection facility, on a separate track, would be a wheel truing facility capable of accommodating two cars at a time. Without a stop in Los Banos, this facility would be unable to operate.

In summary, all indications are that a station will be located in Los Banos if the Henry Miller Road alignment is selected, notwithstanding the statements to the contrary by the HSRA. Even if the HSRA agrees not to initially locate a station stop near Los Banos, commuter growth impacts and land speculation related to the Henry Miller Road alignment will create tremendous pressure to eventually locate a station stop in or near Los Banos.

As we have explained in our prior comments on this issue, a Los Banos station would create disastrous growth pressures in and around the GEA. The Merced County General Plan and Los Banos General Plan lend themselves to a pattern of suburban and rural sprawl due to the predominance of low density general plans and zoning ordinances.[118] The typical development density in the limited High Density development areas in Los Banos is only 15 units per acre. Most of the residentially designated vacant land in the City is in the Low Density and Very Low Density designations ranging from 1 to 7 units per acre.[119] If the HST service is introduced to the area, this would create significant pressures for growth of housing and new services in the area, and that pressure would extend to the privately held lands in and around the GEA that are not permanently protected.

L029-50

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[117] DEIR/S at p. 3.5-17.

[118] While the DEIR/S states that the Cambridge Systematics study considered county general plans and policies, there is no evidence of this in the report. DEIR/S page 5-8. Moreover, the section identifies for subsequent analysis "Land use studies for specific alignment and station areas potentially impacted, including evaluation of potential land use conversion, potential growth, and potential community benefits." DEIR/S page 3.2-27. These are all analyses that must be included in a revised DEIR/S prior to any action on the project. See *Stanislaus Nat'l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.

[119] Los Banos General Plan, pp. LU-3 – LU5.

The low-density housing patterns in this area also lend themselves to the "ranchette phenomenon" of multiple acres per dwelling, which is the worst type of sprawl, since it accelerates development of agricultural lands.[120] If a HST station near Los Banos removes the barrier of accessibility to jobs, the conversion of agricultural and rural lands to urban and "ranchette" development will likely dramatically accelerate around the GEA. The DEIR/S simply fails to consider the tremendous demand for this type of low-density development. The DEIR/S also fails to identify and analyze the additional significant impacts related to that growth including increased traffic, increased pollution, increased demand for services and infrastructure, accelerated and increased loss of open space, agricultural and habitat land. L029-50 cont'd

The DEIR/S must be revised to address where a Merced area central valley station would be located if the Henry Miller Road alignment is selected and to evaluate the potential impacts of such a station on the GEA. If a Henry Miller Road alignment is selected, we urge the HSRA to formalize its commitment not to place a station in the Los Banos area with the adoption of enforceable restrictions. L029-51

The DEIR/S must also be revised to address the impacts of locating a Fleet Storage/Service and Inspection/Light Maintenance Facility in Los Banos. We urge the HSRA to reconsider the placement of such a facility in Los Banos. Such a facility would either require an existing station stop in Los Banos or would induce the future placement of a station stop in Los Banos. If a Henry Miller Road alignment is selected, this facility should instead be located in Gilroy or Fresno. L029-52

XI. THE DEIR/S IS DEFICIENT BECAUSE IT FAILS TO IDENTIFY AND EVALUATE THE IMPACTS THAT INDUCED GROWTH MAY HAVE ON THE GEA

The discussion of growth-inducing impacts in the DEIR/S is further deficient because it neglects not only to address the potential for significant localized growth around the Los Banos and Merced area, but it also fails to identify and analyze the *impacts* that this growth may have on the GEA. The DEIR/S must examine both the possibility that a project may induce growth and the impact that this induced L029-53

[120] Appendix 17, *Watt Comments.*

growth may have on the environment.[121] The lead agency must never assume that growth in an area is necessarily beneficial or of little significance environmentally, but must make its judgment in this regard only after open-minded analysis.[122]

L029-53 cont'd

Impacts of urban encroachment on the wetlands complex of the GEA have been documented in numerous studies including the 1995 Land Planning and Guidance Study and the supporting 1994 study by Reed F. Noss, "Translating Conservation Principles to Landscape Design for the Grassland Water District." These studies have shown that impacts of urban development adjacent to the GEA may include: (1) fragmentation of the North Grasslands from the South Grasslands; (2) a reduction in habitat value of the entire interior of the wetlands complex; (3) chemical disruption including the introduction of fertilizers and toxic chemicals in drainage water; (4) introduction of non-native species of both plants and animals; (5) noise disruption; (6) visual disruption caused by removal of trees and shrubs around the wetlands; (7) interruption of water deliveries for wildlife uses; and (8) the competition for the water supply that supports the wetland habitat.[123] Despite the fact that we provided the HSRA with these studies, the DEIR/S fails to include any discussion, whatsoever, on these potential impacts.

XII. THE DEIR/S IS DEFICIENT BECAUSE IT FAILS TO EVALUATE THE POTENTIAL CONFLICT BETWEEN GROWTH INDUCED BY THE PROJECT AND THE DOCUMENTED NEED FOR ADDITIONAL ACQUISITION OF CONSERVATION AND BUFFER ZONE EASEMENTS TO ENSURE THE GEA'S CONTINUED VIABILITY

L029-54

Induced growth and land speculation along the HST route may make it difficult or economically unfeasible to continue purchasing conservation easements in the GEA or to purchase buffer zone easements. The GEA encompasses approximately 180,000 acres. While many of these acres are protected by conservation easements or as state and federal wildlife areas, critical sections of the GEA remain privately owned, unencumbered by easements or other protection from development pressures. The location of a HST route through the GEA may create a

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[121] CEQA Guidelines § 15126.2, subd. (d)
[122] *Id.*
[123] Appendix 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)).

tipping point where the productive economy of the wetlands can no longer compete with the economic pressures of development.

L029-54 cont'd

In addition to providing high biological value, the Grassland wetlands provide substantial direct economic contributions to the local and regional economies. Unfortunately, the productive economy of the wetlands is threatened by population growth and urban encroachment.[124]

Preservation of the GEA requires that fragmentation around the ecosystem stop and the area not decrease in size. A 2001 Land Use and Economics Study prepared for the GWD evaluated the impacts of a compact growth scenario, characterized by development within existing cities, and a "sprawl" scenario, characterized by low density residential development in rural areas and facilitated by subdivisions of agricultural land. According to the study, sprawl development has a significant cumulative adverse effect on the cost to local government of providing services and on revenue and employment in the GEA.[125] In addition, if non-compatible urban development encroaches on the wetlands so as to reduce its utilization by wildlife, then recreational usage could be expected to decline, and public and private funds for habitat management may be more difficult to obtain.[126]

The DEIR/S must evaluate the Project's potential impact on the continued economic viability of the wetlands economy and how this impact may affect the continued private/public partnership that has preserved the GEA wetlands all these years. A revised DEIR/S must not just acknowledge the potential impacts of the HST on future conservation efforts, but must also identify and evaluate measures to mitigate these impacts.

Despite ongoing conservation efforts, significant portions of the Grasslands still lack permanent protection from development pressures.[127] In addition, the

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[124] Appendix 8, *Grassland Land Use and Economics Study.* According to the 2001 Land Use and Economics Study, Grassland Ecological Area, Merced County, CA, jointly funded by the Grassland Water District, the Packard Foundation and the Great Valley Center, recreational and other activities related to habitat values within the GEA contributes $41 million per year to the Merced County economy, and accounts for approximately 800 jobs. Agricultural lands within the GEA also account for approximately five percent (5%) of Merced County's $1.45 billion agricultural economy.

[125] *Id.*

[126] *Id.*

[127] See Exhibit 3, Ducks Unlimited, Map of Grasslands Ecological Area.

U.S. Fish and Wildlife Service recently proposed significantly expanding the Grasslands boundary to the east by an additional 45,000 acres.[128] Acquiring conservation easements over both the existing unprotected areas of the GEA and the additional areas targeted for expansion will require significant additional private-public cooperation and expenditures. L029-54 cont'd

Several studies have concluded that the best way to protect this investment in the GEA is to prevent any incompatible development from occurring within a two-mile buffer zone around the GEA.[129] These studies have been previously provided to the HSRA along with a map showing the proposed buffer zone areas. Nonetheless, the DEIR/S fails to describe or evaluate the proposed buffer zone areas. The DEIR/S must be revised to evaluate the Project's impact on the ability to create this buffer zone.

The concept of a buffer or band of appropriate land uses around the GEA was comprehensively addressed in the 1995 *Land Planning Guidance Study* prepared for the GWD. The study showed that a two-mile buffer was substantially more effective than a one-mile buffer in protecting the core, or interior of the refuge.[130] L029-55

The 2001 *Land Use and Economics Study* examined the proposed two-mile buffer zone around the GEA and identified "zones of conflict" where the impacts of urbanization on the GEA would likely occur.[131] In particular, of the six cities in Merced County, Los Banos, Gustine and Dos Palos have city spheres that include a portion of the two-mile GEA band. The study also identified growth in unincorporated areas as impacting the two-mile GEA band. According to the study, in the long term, it is essential that this band contain only resource beneficial or resource neutral uses to protect the integrity of the interior of the refuge complex as a whole.[132]

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[128] Appendix 16, U.S. Fish and Wildlife Service, Grasslands Wildlife Management Area Proposed Expansion.

[129] Appendix 8, *Grassland Land Use and Economics Study*, at pp. 11-12; Appendix 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)).

[130] Appendix 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (January 23, 1995).

[131] Appendix 8, *Grassland Land Use and Economics Study*; Appendix 14, Grassland GEA Buffer Zones & Spheres of Conflict Map.

[132] Appendix 8, *Grassland Land Use and Economics Study*.

A key point of the 2001 land use study is that agriculture and wetlands are compatible uses to each other. Agriculture is a productive use within the wetlands complex and especially in the two-mile band around the wetlands to protect the core area from the effects of urban encroachment.[133] The study found that protection of a two-mile band around the core area with only compatible uses (agriculture and open space) inside the band would best protect wetland uses and their infrastructure.[134] The study concluded that General Plan policies and case-by-case local land use planning decisions should be directed away from any further encroachment on the GEA.[135]

L029-55 cont'd

The proposed Pacheco routes, however, would place the High Speed Rail directly within the zone of conflict where the impacts of growth would negatively affect the GEA. The GWD has already heard reports of land speculation in the Los Banos area. This suggests that even the potential for a Los Banos Station has already endangered plans to limit incompatible development.

As urbanization progresses, fragmentation of agriculture and open space increases, the value of agricultural habitats for wildlife declines, transportation corridors expand, threats to eliminate recreational hunting increase, air and water pollution increase, and local hydrology is modified.[136] Thus, disruption and degradation of the functions, values and economic benefits of the Grassland ecosystem would be imminent.

Not only is the GEA a unique, diminishing resource in the Central Valley and the State of California, but these wetlands are also critical to the survival of migratory waterfowl, shorebirds and other wildlife. Further loss and degradation of this largest remnant wetland habitat in the Central Valley will not only have a negative impact on local resident wildlife and plant communities, but would also have a negative impact on migratory species that move across the North American continent and among continents during their annual cycle. For these reasons, protection of this unique ecosystem is essential to the preservation and maintenance of the productivity of this important natural heritage.

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[133] Appendix 8, *Grassland Land Use and Economics Study.*
[134] *Id.*
[135] *Id.*
[136] *Id.*

The DEIR/S, however, fails to identify the need for the acquisition of additional conservation and buffer zone easements and fails to identify the impact that a Pacheco alignment would have on the ability to protect the agricultural lands surrounding the GEA from conversion to uses incompatible with the long-term protection of the GEA. Such an analysis must be an integral part of any evaluation of the impacts of the proposed Pacheco routes. L029-55 cont'd

XIII. THE DEIR/S IS DEFICIENT BECAUSE IT FAILS TO IDENTIFY SPECIFIC, ENFORCEABLE MITIGATION STRATEGIES TO ADDRESS THE POTENTIAL IMPACTS TO THE GEA FROM INDUCED GROWTH

The DEIR/S is also deficient because it fails to identify mitigation strategies to address these potential growth-inducing impacts. While increased concentration of development around HST stations in downtown locations has the potential to avoid or to minimize some impacts, the opposite is likely to be the case where stations are located in rural areas.[137] The Cambridge Systematic study suggests that "regulatory style efforts to encourage increased density and a mix of land uses near rail stations have been effective." However, they also acknowledge that an exception to this would be the stations located outside the downtown areas of the major cities in the Central Valley. Moreover, specific mitigation measures, such as urban growth boundaries, conservation easements, transit-oriented development district planning and zoning, housing density and affordability requirements and the like, directed at avoiding sprawl must be in place *prior* to the HST development. L029-56

Studies that have evaluated the relationship of new transit stations and development have concluded that:

> ...land use benefits from investments in rail transit are not automatic. Rail transit can contribute to positive change, but rarely creates change by itself. The hardware needs software – supportive land use policies such as density bonuses and ancillary infrastructure improvements – if it is to reap significant dividends. [138]

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[137] Appendix 17, *Watt Comments*.
[138] Appendix 17, *Watt Comments*, Attachment D, p. 15.

These studies demonstrate that enhanced land use planning and management is essential to securing "smart growth" outcomes.[139] The DEIR/S, however, fails to identify either the likely growth-inducing impacts from the HST or appropriate mitigation measures to address these impacts. Mitigation measures or criteria directed at avoiding sprawl and protecting the GEA must be identified prior to the selection of a HST alignment through the GEA. L029-56 cont'd

In particular, we support American Farmland Trust's suggestion that the DEIR/S should adopt mitigation that conditions HST alignments on a regional compact, to which the state would be a partner, that would require local governments to adopt effective growth management measures of their own choosing to minimize conversion of farmland and habitat before any land or interest therein may be acquired for rights of way, stations or other HST facilities.

XIV. THE DEIR/S FAILS TO CONDUCT AN ADEQUATE 4(F) ASSESSMENT OF THE PROJECT'S IMPACT ON THE GEA

The failure to adequately take into account the public investment that has been made to protect this critically important ecological resource also violates Section 4(f) of the Department of Transportation Act. Section 4(f) states that the transportation secretary may not approve a transportation project "on publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State or local significance," unless "(1) there is no prudent and feasible alternative to using that land; and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from the use."[140] L029-57

Section 4(f) requires federal agencies to consider alternatives and creates a presumption that public parks and natural resource areas protected by this section may not be used for transportation projects unless truly compelling reasons indicate that no alternative route is possible.[141] This requirement applies even if the land

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[139] Appendix 17, *Watt Comments*, Attachment B.
[140] 49 U.S.C.A. § 303, subd. (c).
[141] *Citizens to Preserve Overton Park, Inc. v. Volpe* (1971) 401 U.S. 402, 412.

from the wildlife and waterfowl refuge is not directly taken for the project, if the project will nonetheless impact the wildlife area.[142] L029-57 cont'd

Section 4(f) applies to any lands in which a governmental body has a proprietary interest in the land for public recreation or wildlife and waterfowl conservation purposes, including conservation easements obtained for the purpose of wildlife and waterfowl habitat protection.[143] Accordingly, it would apply to the more than 64,000 acres of privately managed wetlands in the GEA that are subject to federal conservation easements as well as to the federal wildlife refuges, state wildlife areas and state park within the GEA that would be impacted by this project.

In the case at hand, however, the DEIR/S fails to include privately managed lands subject to federal conservation easements as part of its Section 4(f) analysis. Without even an identification of the federal conservation easement lands in the GEA, there can be no showing made that the DEIR/S complies with 4(f) requirements. L029-58

The DEIR/S also fails to meet the "special effort" or assessment of "prudent and feasible alternatives" mandated under Section 4(f). Section 4(f) creates a "specific and explicit bar" to the sacrifice of these public resources for transportation projects; "only the most unusual situations are exempted."[144] Under Section 4(f), the protection of state and federal natural resource areas and conservation easements take precedence over other Project considerations including cost and directness of route.[145] The DEIR/S must conduct this 4(f) assessment prior to the selection of an alignment that would impact the public GEA lands, even if other alignments may be more costly or less direct. The DEIR/S, however, fails to evaluate any Pacheco Pass alternatives that avoid the public GEA lands. L029-59

The DEIR/S also improperly defers analysis of the location, extent and characteristics of impacts to 4(f) resources.[146] The DEIR/S lists numerous additional research and information that would be necessary to provide a complete inventory and description of the 4(f) resources that may be impacted by the L029-60

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[142] Mandelker, *NEPA Law and Litigation* (2nd Ed. 2001) § 2:19, fn. 1, p. 2-44.
[143] Mandelker, *NEPA Law and Litigation* (2nd Ed. 2001) § 2:19, p. 2-45.
[144] *Id.*
[145] *Id.*
[146] DEIR/S at p. 3.16-19.

Project.[147] The DEIR/S admits that it has failed to describe and evaluate the uses, functions and significance of the 4(f) resources and has failed to describe the potential uses and potential adverse impacts on each resource.[148] L029-60 cont'd

The DEIR/S also improperly defers evaluation of mitigation measures. Instead, the DEIR/S lists "mitigation strategies" which are vague, unenforceable and lack performance criteria. Moreover, the DEIR/S merely lists these strategies and fails to evaluate whether impacts to particular 4(f) resources could be reduced substantially or to a level of insignificance. L029-61

Deferral of this analysis until the project-level EIR is improper because it prevents an informed assessment of alignment alternatives. Prior to selecting a Bay Area to Central Valley alignment, the DEIR/S must: (1) identify all 4(f) resources and evaluate their relative uses, functions and significance; (2) evaluate the Project's impact on the uses, function and significance of each 4(f) resource; (3) identify enforceable mitigation measures to address these impacts; and (4) identify the relative impacts to 4(f) resources after implementation of mitigation measures. Deferring this four-step analysis to the project level precludes an informed assessment of "prudent and feasible alternatives." L029-62

XV. THE DEIR/S FAILS TO ADEQUATELY EVALUATE AND MINIMIZE IMPACTS ON WETLANDS

The DEIR/S fails to comply with the executive wetlands order issued by President Carter, which provides that federal agencies "shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."[149] This executive order has been held judicially enforceable.[150] L029-63

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[147] DEIR/S at p. 3.16-20.
[148] DEIR/S at p. 3.16-20 – 3.16-21.
[149] Executive Order 11,990, 42 Fed. Reg. 26,961 (1977).
[150] *City of Carmel-by-the-Sea v. United States Dept. of Transportation* (9th Cir. 1997) 123 F.3d 1142.

Here, the DEIR/S fails to demonstrate that there is no practicable alternative to avoiding new construction in wetlands. Despite assurances from HSRA staff, the DEIR/S fails to evaluate any Pacheco Pass alignment alternative that avoids impacting the public GEA lands. The Altamont Pass alignment, on the other hand, includes several options for substantially avoiding new construction in wetlands, including avoiding a transbay crossing altogether. In addition, an Altamont Pass alignment could also substantially avoid new construction in wetlands by tunneling under the Bay or utilizing the existing Dumbarton Bridge. Pursuant to Executive Order 11,990, these Altamont Pass alignment options must be utilized unless demonstrated impracticable. L029-64

The evaluation of wetland impacts in the DEIR/S is also inadequate because it merely lists the acreage of wetlands within 50 feet of the proposed alignments. The DEIR/S fails to provide any qualitative evaluation of the wetlands. A meaningful analysis requires an examination of the relative uses, functions and significance of the affected wetlands. The DEIR/S also fails to take the analytic step of evaluating what impacts the Project may have on the uses, functions and significance of the affected wetlands both before and after mitigation. L029-65

XVI. DEIR/S FAILS TO EVALUATE THE PROJECT'S IMPACT ON MIGRATING BIRDS

The DEIR/S is also deficient because it fails to evaluate the Project's impact on migrating waterfowl and shorebirds. Despite our extensive comments submitted on this issue during the NOP comment period, the DEIR/S contains absolutely no analysis of potential impacts on migrating birds. The failure to consider the effect of the proposed action on migratory birds is a violation of both CEQA and U.S. Executive Order 13186 L029-66

U.S. Executive Order 13186 requires federal agencies to avoid or minimize the effects of their actions on migratory birds.[151] This executive order requires that evaluation of agency projects under NEPA consider the effects of the proposed action on migratory birds.[152] The DEIR/S fails to make this required evaluation with regard to the effect of the Project on the GEA, despite the fact that the GEA

[151] Executive Order 13186, 66 Fed. Reg. 3853 (2001).
[152] *Id.*

provides a nationally and internationally important wintering ground for migratory waterfowl and shorebirds of the Pacific Flyway. L029-66 cont'd

XVII. THE DEIR/S FAILS TO ADEQUATELY EVALUATE CUMULATIVE IMPACTS

CEQA and NEPA require that the Project's cumulative impacts be evaluated in addition to its direct impacts. The CEQA Guidelines define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."[153] "[I]ndividual effects may be changes resulting from a single project or a number of separate projects."[154] Federal Regulations implementing NEPA also require that the cumulative impacts of the proposed action be assessed. Cumulative impact is defined by the Council on Environmental Quality as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions."[155] L029-67

A legally adequate "cumulative impacts analysis" views a particular project over time and in conjunction with other related past, present and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."[156] As the court recently stated in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114:

> Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions

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[153] CEQA Guidelines Section 15355, subd. (a).
[154] *Id.*
[155] 40 C.F.R. § 1508.7.
[156] CEQA Guidelines § 15355, subd. (b).

when considered collectively with other sources with which they interact. L029-67 cont'd

Here, the DEIR/S fails to assess the cumulative loss of wetlands and biological habitat in light of the threat from the current rate of urbanization of this area. The studies submitted in support of this comment demonstrate that strong land use policies, including the creation of two-mile wide buffer zones, will have to be taken to protect the GEA from projected growth in and around Los Banos. The DEIR/S fails to recognize or analyze the significant cumulative impact the Pacheco Pass alignments may have on the effort to stem urban encroachment and protect the critical habitat in the GEA. L029-68

In addition, the DEIR/S fails to assess the cumulative fragmentation impacts of aligning the rail project along Henry Miller Road. Henry Miller Road and State Route 152, along with increasing development in the City of Los Banos, already dangerously fragment the GEA. As a result, the portion of the GEA south of Henry Miller Road is considered the most threatened area of this ecosystem. The proposed HST would further fragment this area by adding a barrier fence along this route and by the passing of high-speed trains every five minutes.

The DEIR/S must assess the fragmentation impacts of the HST collectively with the fragmentation impacts of existing and reasonably foreseeable future projects in the Henry Miller Road area. Among the reasonable foreseeable future projects that must be assessed in any cumulative analysis is the proposed SR 152 bypass project, which will further contribute to the continued fragmentation of this area.[157] L029-69

The DEIR/S must be revised to take into account existing and reasonably foreseeable future fragmentation impacts as required under CEQA.

[157] See Appendix 16.

XVIII. THE DEIR/S FAILS TO SELECT AN ENVIRONMENTALLY SUPERIOR ALTERNATIVE

L029-70

The DEIR/S is legally deficient because it fails to select an environmentally superior alternative.[158] CEQA Guidelines section 15126.6 requires the selection of an environmentally superior alternative to the proposed Project. If the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Generally, the environmentally superior alternative is that which is considered to result in the generation of the least significant environmental impacts.

Similarly, NEPA requires the identification of an "Environmentally Preferable" alternative. The Council on Environmental Quality ("CEQ") states that the Environmentally Preferable Alternative is usually " . . . the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."[159] Identifying and studying alternatives to a proposal is the key to the NEPA objective preserving and protecting the value of environmental and community resources.

CEQA requires that an EIR provide a discussion of project alternatives that allows meaningful analysis and informed public participation.[160] Evaluation of alternatives should present the proposed action and all the alternatives in comparative form, clearly define the issues and provide a clear basis for choice among the options. In its regulations implementing NEPA, CEQ calls the alternatives analysis section the "heart of the EIS."[161]

The DEIR/S improperly defers selection of the environmentally superior alternative to the Final DEIR/S. An EIR is legally inadequate where the draft released for public consumption "hedges on important environmental issues while deferring a more detailed analysis to the final [environmental document] that is

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[158] DEIR/S at p. S-17 (selection of the least environmentally damaging practicable alternative "will be identified in the Final Program EIR/EIS"); see also DEIR/S at Ch. 8.
[159] CEQ, NEPA 40 Questions, number 6(a).
[160] *Laurel Heights Improvement Assns. V. Regents of University of California* (1988), 47 Cal.3d 376, 403-404.
[161] 40 C.F.R. § 1502.14.

insulated from public review."[162] The DEIR/S' deferral of selection of the environmentally superior alternative deprives the public of the opportunity to evaluate and comment on the selection's factual and analytical basis. As a result, the very analysis that is at the "heart" of the EIR/S is unlawfully insulated from public review. L029-70 cont'd

The DEIR/S is also deficient because it fails to compare the Altamont Pass alternative in any meaningful way with the Pacheco Pass alternative. The comparison that is provided is muddied and made incomprehensible by the inclusion of multiple Altamont sub-alignment options without any clear indication as to which Altamont sub-alignment options should be compared to which Pacheco Pass alignments. Instead the DEIR/S appears to compare the possible impacts from any and all of the Altamont alignments with the possible impacts from any and all of the Pacheco alignments.

Such a comparison lacks meaning because the impact of the Altamont Pass alignment varies wildly depending upon the proposed sub-alignment decisions. For example, the wetland impacts associated with the Altamont Pass alignment can be substantially avoided by avoiding a transbay crossing or utilizing a transbay tunnel or the existing Dumbarton Bridge crossing. L029-71

The only way to meaningfully compare the Altamont alignment with the Pacheco alignment is to clearly identify an environmentally superior Altamont alignment and an environmentally superior Pacheco alignment and then compare those two alignments. Without clearly identifying which sub-alignments will be selected, any comparison between the Altamont alignment and the Pacheco alignment is meaningless. The DEIR/S must be revised to clearly identify the environmentally superior Altamont alignment and the environmentally superior Pacheco alignment in order to provide the public a clear basis for the choice between these options.

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[162] *Mountain Lion Coalition v. Fish and Game Commission* (1989) 224 Cal.App.3d 1043, 1052.

XIX. THE ALTAMONT PASS ALIGNMENT IS THE ENVIRONMENTALLY PREFERABLE ALTERNATIVE

L029-72

Even with the numerous flaws and omission in the DEIR/S that appear weighted toward selecting an alignment along Pacheco Pass, the DEIR/S and its appendices show that Altamont is the environmentally superior alignment. The Altamont Pass alignment would have: (1) significantly higher ridership when regional commuter ridership is taken into consideration; (2) lower operational costs; (3) faster travel times; (4) fewer farmland, floodplain and special status species impacts; and (4) fewer *unavoidable* wetland impacts.

The Altamont Pass is the only alternative that would substantially reduce the Project's impact by locating the HST along an already developed corridor. The Pacheco Pass alignment, on the other hand, would create new, intense development pressures in largely undeveloped or sparsely developed areas. The environmentally preferable Altamont Pass alignment would serve more people, cost less to operate, result in less growth-inducing impacts and would avoid massive construction and development in rural areas and wetlands habit. When the flaws and omissions of this document are corrected, we believe that there is no question that the Altamont alignment is environmentally and economically preferable to the Pacheco Pass alignment.

If the Authority is nonetheless determined to push through a Pacheco Pass alignment, alternative routes must be evaluated which would avoid the GEA altogether. Because of the fragility of the already fragmented north-south corridor of the GEA, the Henry Miller Road alignment would be the most environmentally damaging alignment and must be avoided at all costs.

XX. THE DEIR/S MUST BE RECIRCULATED FOR PUBLIC REVIEW

L029-73

An EIR must be recirculated for public comment whenever "significant new information" is added after the public review period or where "substantial changes" are made to the draft EIR.[163] The Guidelines clarify that new information is significant if "the EIR is changed in a way that deprives the public of a meaningful

[163] Pub. Resources Code § 21092.1; *Sutter Sensible Planning v. Sutter County Board* (1981) 122 Cal.App.3d 813, 823.

opportunity to comment upon a substantial adverse environmental effect of the project" including, for example, "a disclosure showing that . . . [a] new significant environmental impact would result from the project."[164] The courts have also held that a deficient analysis in a draft EIR cannot be bolstered by a final EIR unless the final EIR has been circulated for public review.[165]

L029-73 cont'd

The comments presented above identify numerous issues that have not been addressed at all in the DEIR/S. Indeed, the DEIR/S utterly fails to even acknowledge the existence of the GEA, much less to examine the potential impacts of the Pacheco alignment on this resource of international importance. The response to these comments will, thus, necessarily constitute "significant new information" within the meaning of CEQA, and the public must be provided an opportunity to review the revised DEIR/S.

XXI. CONCLUSION

The Grassland Ecological Area is an irreplaceable, internationally significant, ecological resource. The proposed Pacheco Pass Alignments would bisect this area causing fragmentation and other direct impacts. Furthermore, the growth-inducing impacts of locating a train station in rural Merced County could result in urban encroachment and development pressures that could destroy this ecological treasure.

Prior to choosing the Pacheco Pass as a preferred alignment, the High Speed Rail Authority is required to ensure that it is fully informed about: (1) the project setting as it passes through the Grassland Ecological Area; (2) the potential direct and indirect impacts the Pacheco alignment may have on the biological resources of the GEA and the continued viability of the GEA; (3) whether these impacts can be mitigated and, if so, what mitigation measures to protect this area will be imposed as a condition of choosing the Pacheco alignment as the preferred alignment; and (4) whether other feasible alternatives, such as the Altamont Pass alignment, exist which would substantially or entirely avoid impacting the GEA.

L029-74

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[164] CEQA Guidelines § 15088.5.
[165] *Mountain Lion Coalition v. Fish & Game Com.* (1989) 214 Cal.App.3d 1043, 1052.

The current DEIR/S has failed to make these legally required analyses and thus may not be relied upon to support a selection of the Pacheco Pass alignment as the preferred alignment. The DEIR/S should be revised to address the shortcomings described above and in the attached documents, and it should be re-circulated for public review. L029-74 cont'd

Sincerely,

Thomas A. Enslow

TAE:bh
Attachments

EXHIBIT A

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October, 25, 2007

Thomas Enslow
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RE: Potential Impact of High Speed Train Project on the Grasslands

Dear Mr. Enslow:

Pursuant to your request, I have reviewed the proposed High Speed Train project for its potential impact on the Grassland Ecological Area (Grasslands). L029-75

I am the Associate Biologist for the Grassland Water District. I have personal knowledge and professional experience concerning the maintenance and protection of the Grasslands ecosystem for wildlife habitat. Encompassing approximately 180,000 acres, the Grasslands is the largest wetland complex in California and contains the largest block of contiguous wetlands remaining in the Central Valley.

The Grassland Ecological Area is of considerable importance because it preserves a variety of habitats critical to the maintenance of biodiversity on a local, regional, national and international scale. The Grasslands constitutes one of the most important migratory waterfowl wintering areas on the Pacific Flyway, and international treaties have recognized the habitat as a resource of international significance. L029-76

The complex of wetland habitats within the Grasslands is of special significance because the size, juxtaposition, and connectivity of the different wetland types provide a unique opportunity to sustain native migratory and resident wildlife populations. The associated grasslands surrounding the semi-permanent wetlands are also of special importance, because they provide nesting areas for waterbirds, important food sources for grazers such as geese, and essential habitat for endangered species and numerous upland wildlife species. Over one million waterfowl winter in the Grasslands each year and the Grasslands provides

critical habitat for over 550 species of plants and animals, including 47 plant and animal species that are endangered, threatened or candidate species under state or federal law. Species dependent on Grasslands Ecological Area habitat include San Joaquin kit fox, Aleutian Canada [cackling] geese, sandhill cranes, California tiger salamander, vernal pool fairy shrimp, tadpole shrimp, California red-legged from, the giant garter snake, Swainson's hawks and tri-colored blackbirds. L029-76 cont'd

The Grasslands Ecological Area boundary is a non-jurisdictional boundary designated by the U.S. Fish and Wildlife Service in order to identify an area for priority purchase of public easements for wetland preservation and enhancement. The protection of this area has been the result of private and public investments and partnerships. The Grasslands includes federal wildlife refuges, a state park, state wildlife management areas and the largest block of privately managed wetlands in the state. The Grasslands also includes a large and growing portfolio of federal and state conservation easements.

Despite these ongoing conservation efforts, significant portions of the Grasslands still lack permanent protection from development pressures. In addition, the U.S. Fish and Wildlife Service recently proposed significantly expanding the Grasslands boundary to the east by an additional 45,000 acres. This proposed expansion would require significant additional private-public cooperation and expenditures.

It is my understanding that the Draft Bay Area to Central Valley High Speed Train Program EIR/EIS proposes two Pacheco Pass alignments that would bisect the Grasslands: a Henry Miller Road alignment and a GEA North alignment.

The proposed Henry Miller Road alignment runs directly through the Grasslands Ecological Area, fragmenting a critical southern spur of the Grasslands from the rest of the contiguous wetlands and isolating another small section of wetlands as well. This route cuts across the southern part of the Volta State Wildlife Management Area and the Los Banos State Wildlife Management Area (the oldest Wildlife Management Area in the state - created in 1929) and would obstruct the important wildlife corridor connecting the North and South grasslands. L029-77

The proposed GEA North alignment would also fragment the Grasslands. The GEA North alignment bisect the southern half of the China Island Unit of the North Grasslands Wildlife Area along State Highway 140.

The selection of a High Speed Train alignment through the Grasslands may pose a substantial threat to the Grasslands' important ecological resources. The proposed Pacheco alignments would both create physical barriers bisecting the Grasslands and would likely result in significant fragmentation impacts on the wetland habitat and wildlife. Bisection of the Grasslands by a high speed rail may

interfere with critical wildlife corridors, disrupt canals and waterways, degrade water quality, interfere with waterfowl nesting and breeding, induce inconsistent growth in and adjacent to the Grasslands, and increase wildlife mortality rates due to noise, shock and collision impacts. L029-77 cont'd

These impacts could be dire. A 2001 Land Use and Economics Study of the Grasslands Ecological Area commissioned by the Grassland Water District found that "if growth of Los Banos toward the east were to fragment and isolate the North from the South Grasslands, this could have a profound effect on the movement of waterfowl between different parts of the refuges they now utilize on a daily basis." An earlier study entitled "Translating Conservation Principles to Landscape Design for the Grassland Water District" by noted conservation biologist Reed Noss found that "[a]ny further fragmentation of this vulnerable linkage between the north and south units of the Grassland Management Area could well provide the 'final blow' in fragmenting the wetland ecosystem."

I have reviewed the proposed placement of the Henry Miller Road alignment and believe that this alignment option could very well be the "final blow" to the vulnerable linkage between the north and south units. Construction of a few wildlife underpasses alone would likely be insufficient to address this impact, especially along Henry Miller Road. Fragmentation does not require complete separation. Rather, it is a relative and cumulative problem. After some threshold of fragmentation is exceeded, movement of individuals will no longer occur regularly enough to maintain the population of a fragmentation-sensitive species. As discussed above, the area along Henry Miller Road is already dangerously fragmented.

In addition to creating physical barriers, the High Speed Train system may significantly disturb wildlife in the Grasslands as a result of noise and vibration impacts. Studies have shown that noise and vibration disturbances may displace waterfowl from feeding grounds, may cause desertion of nests, may increase energetic costs associated with flight, and may lower productivity of nesting or brooding waterfowl, among other impacts. The potential impacts of High Speed Train noise and vibration on the sensitive wildlife species in the Grasslands should be studied before the Authority commits to an alignment that would run through this area. Because such impacts are directly related to train speed, the speed of the High Speed Train should be restricted as it passes through the Grasslands. L029-78

The High Speed Train Project also has the potential to cause significant impacts to the complex of natural and man-made channels, which move water through the region's wetlands, establish the waterfowl habitat and support nearly all the Grasslands ecological functions. The Grassland Water District has spent much time and money managing the application of water in the Grasslands. Historically, water quality problems in the Grasslands have had a tremendous L029-79

impact on wildlife. Imposition of a complete or partial hydraulic barrier across the Grasslands will materially impact the south-to-north water management in the Grasslands, which is essential to maintaining water quality. L029-79 cont'd

Construction of the High Speed Train and maintenance activities may also alter the present water flow patterns, introduce sediment and create stagnant sections of the wetlands producing essentially permanent water quality degradation. Water quality degradation may significantly impact the Grasslands migratory bird population by altering growth of feed and increasing the risk of avian botulism. At a minimum, construction and maintenance activities should be limited seasonally to avoid interference with migration, nesting and breeding habits. L029-80

Because of the unique impacts that may be posed by a High Speed Train system, further study is needed to assess whether feasible mitigation measures are even available to mitigate impacts to the Grasslands ecological resources to a level of insignificance. If impacts will be significant and unavoidable even with mitigation, the proposed Pacheco Pass alignments should be avoided altogether. L029-81

Thank you for the opportunity to comment on this matter.

Sincerely

Rich Wright, Associate Biologist